DOCUMENT RESUME

ED 083 507 CG 008 370

AUTHOR	Gelatt, H. B.; And Others
TITLE	Decisions. A Leader's Guide.
INSTITUTION	College Entrance Examination Board, New York, N.Y.
PUB DATE	73
NOTE	116p.
AVAILABLE FROM	College Entrance Examination Board, Box 592, Princeton, New Jersey 08540 ($3.00)
EDRS PRICE	MF-$0.65 HC Not Available from EDRS.
DESCRIPTORS	Cognitive Processes; College Students; *Decision Making; *Decision Making Skills; High School Students; *Problem Solving; Program Descriptions; *Program Guides; Role Playing; *Self Evaluation; Young Adults
IDENTIFIERS	*Decisions and Outcomes (CEEB)

ABSTRACT

This program, "Decisions and Outcomes", was developed as an extension of the junior high program, "Deciding". The new one is intended for senior high school students, college students, and adults and can be used as an extension of "Deciding" or as a substitute for it with older students. The program deals with typical real-life situations faced by many young adults in a variety of settings and situations. The exercises provide participants with an opportunity to learn more about themselves and their peers by helping them learn how to develop and apply decision-making skills. The materials retain the decision-making concept of "Deciding", but the focus of "Decisions and Outcomes" is the utilization, application, and evaluation of information, objectives, and strategies in the context of more complex personal, educational, and career decisions. The program content is divided into four separate sections: the starting point; the deciding self; before deciding; and apply skills. The program emphasizes practice in using decision-making concepts and skills. Role-playing and simulation are important parts of the program. "(Deciding," ED 071 931). (Author/WSK)

DECISIONS AND OUTCOMES

A Leader's Guide

ED 083507

PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL BY MICROFICHE ONLY HAS BEEN GRANTED BY
CEEB
TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

CG 1

CG 008 330

FILMED FROM BEST AVAILABLE COPY

ED 083507

DECISIONS AND OUTCOMES

A Leader's Guide

H. B. Gelatt,
Barbara Varenhorst,
Richard Carey,
and Gordon P. Miller

College Entrance Examination Board, New York, 1973

Decisions and Outcomes: A Leader's Guide, and its companion publication, Decisions and Outcomes, which is an outgrowth of the College Board's Deciding program that was designed for junior high school students, constitute a new decision-making curriculum intended to help older high school students, college students, and adults who are faced with personal, educational, or career decisions. These books present a course of study in the development and application of decision-making skills. The program can serve as a framework for a course in decision-making, as a major component in guidance and counseling programs, or as part of subject areas such as English, history, human relations, drug education, and health education. The materials are especially appropriate for use in group settings, including the classroom, college orientation programs, or small group counseling situations.

Copies of this publication may be ordered from Publications Order Office, College Entrance Examination Board, Box 592, Princeton, New Jersey 08540. The price is $3 per copy. One copy is provided without charge with each order for 20 or more copies of the student book Decisions and Outcomes.

The College Entrance Examination Board is a nonprofit organization that provides tests and other educational services for students, schools, and colleges. The membership is composed of more than 2,000 colleges, schools, school systems, and education associations. Representatives of the members serve on the Board of Trustees and advisory councils and committees that consider the Board's programs and participate in the determination of its policies and activities.

Copyright © 1973 by College Entrance Examination Board.

All rights reserved.

Printed in the United States of America.

AUTHORS

H.B. Gelatt, formerly director of guidance for the Palo Alto Unified School District in California, identified himself with decision-making while working on his doctorate at Stanford University. At that time he wrote the article, "Decision-making: A Conceptual Frame of Reference for Counseling," which was published in the Journal of Counseling Psychology in 1962. This has proven to be one of the foundation articles on the concept of decision-making counseling theory. He completed his doctorate in 1961. He is well known throughout the country for the leadership he has given to innovative guidance programs, including decision-making guidance units for junior high school students. Since 1971 he has been affiliated with the College Entrance Examination Board as a guidance consultant. In July 1973 he began coordinating a decision-making training project for the Board. He has been in public school education for 20 years as a teacher, counselor, school psychologist, and administrator. His articles have been published in professional journals.

Barbara B. Varenhorst, consulting psychologist for the Palo Alto Unified School District, received her doctoral degree in counseling psychology from Stanford University. Before attending Stanford she was a junior high school teacher and counselor and then a psychologist at a high school in Palo Alto, California. A major area of interest has been in the development and adaptation of the Life Career Game, a decision-making simulation. She has contributed to edited volumes on the topics of simulations, decision-making, and group counseling. She is a past winner of the APGA Research Award and has been chairman of the APGA Research Award committee and ASCA Research Committee. She has taught at both Harvard and Stanford universities and is currently working on the development of a peer counseling program in Palo Alto.

Richard Carey is at present serving as director of guidance for the Palo Alto Unified School District, having worked the previous six years in research and evaluation projects within the guidance department. He received his doctorate from the University of California at Berkeley in counseling psychology in 1960. He has taught guidance courses and supervised counselor-trainees at the University of California at Berkeley, San Jose State University, Stanford University, and the University of Santa Clara. Before coming to Palo Alto he worked for the California State Department of Education where he was a consultant for two model state projects concerned with testing and development of guidance programs that focused on decision-making. He is president of the California Association for Measurement and Evaluation in Guidance. His article in Thrust in February 1973, proposed some alternative futures for student support services which feature decision-making as a prominent aspect.

Gordon P. Miller, program services officer of the College Entrance Examination Board, joined the College Board staff in 1966 and has been directing its Deciding program since it began in 1971. Other programs at the Board with which he has been affiliated include the Educational

Guidance Information System (EGIS), the College Locater Service (CLS), and the Preliminary Scholastic Aptitude Test (PSAT). He received his doctorate from Teachers College, Columbia University in guidance and counseling. His dissertation was concerned with the impact of a decision-making curriculum on secondary school students. He has held counseling, guidance, and teaching positions in schools in New York and was assistant director of student activities at Colgate University. He has published articles in the College Board Review describing the Deciding program at its outset and evaluating its success one year later.

CONTENTS

Preface vii

Introduction. 1
Decision-Making Rationale and Principles 2
Building an Effective Setting for the Decisions and Outcomes Curriculum. 9
Introducing the Program. 10
An Orientation Activity. 11
Community Building 11
Community Building Activities. 12
Notes on Community Building Activities 12
Feedback 13
Feedback Activities. 13
Feedback Form. 14
The Evaluation of Decisions and Outcomes 15
Some Tips on How to Evaluate 15
Informal Input from Students 15
Formal Input from Students 16
Parents and Administrators in Relation to Evaluation 16
Some Student Input Formats 17
Using the Student Self-Evaluation Exercises. 17
Innovations. 18
Training Program 18
Survey of Student Opinion on Decision-Making Sessions (Progress Evaluation) 20
End of Course Evaluation 21
Middle or Early Session Evaluation: Progress Report 22
End of Course Evaluation 23

The Starting Point. 25
Introduction 27
Activities for Achievement Motivation. 29
Decision-Making: Why It's Important 32
Decision-Making: What Is It?. 32
Becoming a Skillful Decision-Maker: What Is Involved? 32
Decision-Making: The Process. 32
Relative Importance of Decisions 32
What Is a Good or a Poor Decision? 33
Decision versus Outcome. 33
Decision Agent 33
Self-Evaluation. 34

The Deciding Self 35
Introduction 37
Alice in Wonderland. 38
What Do You Want?. 39
What Would You Do If...? 39
What Do Other People Value?. 40
To Decide or Face the Consequences: Pete's Day. 41

Establishing Objectives 43
What Is Your Career Plan? 43
Work Values in Job Choice 44
Objectives and Choosing a Job 45
Checkpoint. 46
Supplemental Activities 46

Before Deciding. 49
Introduction. 51
Information Collecting. 52
The Doctor's Dilemma. 53
Gathering Information 54
Sources of Information. 56
The Emotional Impact of Information 57
Viewing Information 58
What Is a House Worth?. 59
A Fact and Some Views 59
The Evaluation of Experience. 59
The Importance of Information 60
Risk-Taking 61
Situations to Consider. 63
Predicting Outcomes 65
Futuristics 66

Applying Skills. 67
Introduction. 69
Mark's Critical Decision. 71
Intuition in Decision-Making. 72
Other Decision-Making Strategies. 73
The XYZ Choice. 73
XYZ Choice. 77
XYZ Choice -- Alternate Exercise. 78
Worksheet for XYZ Choice. 79
Three Critical Decisions. 80
Summer Job Choice 81
Summary Data Card 83
Fred's Dilemma. 84
After High School 86
Selecting a College 87
Self-Evaluation 87
Innovations 88

Leader's Resource Guide. 89

Bibliography 101

PREFACE

For over 70 years, the College Entrance Examination Board has been offering a variety of education services and materials to meet the needs of students in the process of making the transition from school to college. Because this transition involves personal, educational, and vocational choices the College Board recognized the need for learning materials in decision-making.

The Board's efforts in the area of decision-making began in 1968 when the membership endorsed a long-range plan for guidance services. This plan suggested a growing emphasis on developing specific curriculum materials designed to help individuals learn how to make well-considered, well-informed choices. The result of this effort was Deciding -- a decision-making curriculum for middle school students that was introduced to schools in 1972. This program was met by enthusiasm from secondary school students, teachers, counselors, and parents. By the middle of 1973, over 100,000 students were using the Deciding curriculum. With the excellent response to this initial program came requests for materials suitable for older high school students, college students, and adults.

Decisions and Outcomes and Decisions and Outcomes: A Leader's Guide represent the Board's attempt to respond to these requests for more advanced decision-making materials.

This program, Decisions and Outcomes, was developed as an extension of the first decision-making curriculum. It is intended for senior high school students, college students, and adults. It can be used as an extension of Deciding or as a substitute for it with older students. Or the two programs can be used together with appropriate local adaptations to make a longer course of study.

Exercises and activities in Decisions and Outcomes were field tested with high school students and adults during the spring of 1973. The materials included here reflect the results of the field trials, as well as the counsel and advice of the Board's decision-making advisory panel. Panel members are: Loren Benson, coordinator of pupil personnel services, Independent School District No. 274, Hopkins, Minnesota; Joseph W. Constantine, coordinator of guidance services, Hartford Board of Education, Hartford, Connecticut; Lorraine Hansen, professor of counseling psychology, University of Minnesota, Minneapolis, Minnesota; Robert M. Jefferson, associate higher education officer, The City University of New York, New York, New York; Larry Kurland, president, Maryland Personnel and Guidance Association, Baltimore, Maryland; Mary K. Ryan, guidance coordinator, West Junior High School, Brockton, Massachusetts; T. Antoinette Ryan, professor of guidance and counseling, Education Research and Development Center, University of Hawaii, Honolulu, Hawaii; C. Gilbert Wrenn, professor of education (retired), visiting professor at Arizona State University, Tempe, Arizona.

Decisions and Outcomes is an exciting program that can be effectively implemented in a variety of group settings including the classroom, orientation programs, and group counseling units.

In anticipation of further development and revision of this decision-making curriculum, the College Board welcomes comments on Decisions and Outcomes and inquiries from colleagues in the educational community.

Gordon P. Miller
Program Services Officer
Deciding and Decisions and Outcomes

INTRODUCTION

Decisions and Outcomes deals with typical and real-life situations faced by many young adults in a variety of settings and situations. The exercises provide participants with an opportunity to learn more about themselves and their peers by helping them learn how to develop and apply decision-making skills. The materials retain the decision-making concept of Deciding,[1] but the focus of Decisions and Outcomes is the utilization, application, and evaluation of information, objectives, and strategies, in the context of more complex personal, educational, and career decisions.

This Leader's Guide, a teaching guide for leaders, provides resource material to help attain program objectives. Student materials can be used in a variety of ways -- as a course in decision-making, as a major component or conceptual framework for a guidance and counseling program, and as part of subject areas such as English, history, human relations, drug education, and health education. The materials are especially appropriate for use in group settings, including the classroom, college orientation programs, and small group counseling situations.

The program content is divided into four separate sections.

"The Starting Point" provides an introduction to decision-making and a review of the individual's familiarity with the decision-making process.

"The Deciding Self" focuses on recognizing one's values and learning to establish clear objectives from them.

"Before Deciding" stresses the importance of gathering and evaluating information, identifying alternatives, learning about personal risk-taking, and developing strategies in the decision-making process.

"Applying Skills" provides a wide variety of exercises that present the opportunity to make decisions about jobs, educational objectives, careers, family relations, college, and resolving value conflicts.

The program emphasizes practice in using decision-making concepts and skills. The best evidence of learning is the degree to which students can be observed applying the principles to their own decisions. For this reason the role-plays and simulations are significant parts of the program. By using both of these techniques leaders will be giving students a chance to

---

1. Deciding, and Deciding: A Leader's Guide, designed primarily for students in grades 7 through 10, is a course of study to teach younger students how to make decisions and to assist them in the development of decision-making skills. The program was written by the authors of Decisions and Outcomes, and introduced by the College Entrance Examination Board in 1972. Further inquiries about this program should be addressed to: Deciding, College Entrance Examination Board, 888 Seventh Avenue, New York, New York 10019.

try out their decision-making skills on other people's decisions before applying the process to their own lives.

Before beginning the program, the leader should study both the student book and the Leader's Guide carefully, including the supplementary material. The leader should consider his students and the amount of time available. It is expected that leaders will adapt the materials to local situations. Such adaptations can be responsive to the leader's skill and knowledge of the techniques, as well as to the varying abilities, motivations, and experiences of the students in the class and the amount of decision-making skill they already possess.

The material was written to be used in a flexible manner by leaders. Its effectiveness will be enhanced and strengthened if the program is perceived as a framework within which a leader creates a specific program to meet the immediate, individual needs of his group.

The contents of the student book can be covered in a minimum of 15 class periods. If the recommendations in the Leader's Guide are followed, the program may be extended to a nine-week period or about 45 days. Some leaders, using the materials once a week with their groups, may find a semester, or 20 class periods over 20 weeks, to be an appropriate time period for covering the course. The time necessary will depend ultimately on the nature of the group and the specific objectives of the leader.

To assist leaders in using the program the authors have prepared the discussion that follows, which it is hoped will answer questions a leader may have regarding the entire decision-making process. After decision-making itself is defined and briefly discussed, each of the units of the student book is explained in a general way. The explanation is followed by a page-by-page commentary on each unit of the student book.

Decision-Making Rationale and Principles

Decision-making can be defined as a process in which a person selects from two or more possible choices. A decision is not required unless there is more than one course of action, alternative, or possibility to consider. If a choice exists, the process of deciding may be utilized.

The potential value of the process lies in the fact that its practitioner is more likely to be satisfied with his decisions. The process requires skills that can be learned, applied, and evaluated. A first step in learning the process involves thinking about both personal and group values. Considering values removes the implication of "right" answers or outcomes, emphasizing rather an effective use of a process that results in satisfying consequences. This emphasis distinguishes decision-making from problem-solving. Problem-solving usually involves one best or right solution for everyone.

When decision-making is skillfully used, it is more likely that the outcome will be satisfying. A skillful decision-maker has more personal freedom in his life because he is more likely to recognize, discover, or create new opportunities and alternatives. He also has greater control over his life because he can reduce the amount of uncertainty in his choices and limit the degree to which chance or other people determine his future.

Two individuals may face a similar decision, but each person is different and may place differing values on outcomes. It is the individual who makes each decision unique. Learning decision-making skills, therefore, increases the possibility that each person can achieve that which he values.

Each decision is necessarily limited by what a person is capable of doing. Someone who cannot drive a car cannot decide between walking and driving. Also, even though he may be capable of driving, if he does not own a car and does not have access to a car, he still does not have the choice of deciding between walking and driving. A person's capability includes his knowledge of how to use alternatives; this knowledge gives him greater control over the decisions he must make.

Decisions are also limited by what a person is willing to do. A teen-ager who can have a date to a football game, provided he calls a girl, but who is not willing to call restricts his alternatives. Not choosing to decide is a passive decision -- it is a decision not to decide.

A third limitation on decisions is determined by the environment. If only one restaurant is located in town and if a couple does not care to drive to another town, they have a limited choice of where to dine out.

Lack of knowledge of personal values (what do I value?) and lack of decision-making skills (or infrequent use of skills) also restrict or limit the decisions that can be made with satisfaction.

Three major requirements of skillful decision-making are:

a. Examination and recognition of personal values. ("The Deciding Self")

b. Knowledge and use of adequate, relevant information. ("Before Deciding")

c. Knowledge and use of an effective strategy for converting this information into an action. ("Applying Skills")

Each of these requirements forms a unit of work for students in the book.

Values

Values are the foundation and integrating framework of the complete decision-making process and for this reason are taken up in the first unit of the student book. Values determine what is "satisfying" and thus help a person to set objectives. Values also dictate the actions to be taken to reach those objectives. The information that is sought, the evaluation of that information, and the weight given to various pieces of data are influenced by personal values. A person facing a decision involving a conflict of values, accompanied by strong emotion, knows he faces an important decision, one requiring skill to decide satisfactorily.

The unit on values takes students through a consideration of these topics: the importance of values in the decision-making process; the individual, personal nature of values; a definition of values; recognition of values in others; clarification of own values; identification of values of groups; establishing objectives from values.

Many differing theoretical definitions of values exist. Values are determined on the basis of what a person prizes, cherishes, or esteems. Values are expressed more consistently in a person's behavior than are particular interests, beliefs, or attitudes. What a person values often determines what he does.

Teaching about values is a complicated and controversial task. It is difficult for a leader to introduce such a personal subject as values without bringing to his students his own subjective ideas. Despite the complications, the consideration of values cannot be neglected if sound decisions are to be made.

Prizing, cherishing, and esteeming lie in the affective domain, as indications of feelings and emotions. Education has traditionally concentrated on the cognitive to the neglect of systematic consideration of affect and therefore of values. Because values are learned, they are appropriate subject matter for the classroom. Students will be better educated, more competent, and more independent if they learn the source of values, how values are acquired, the values of other people, and respect for differing values. Studying values may lead students to: know more about themselves; identify clearly their personal values; give greater commitment to those values; experience the satisfaction of achieving what is valued; become more effective decision-makers.

Teaching this unit can be fun and stimulating. Students acknowledge the importance of values by their responsiveness to the subject of values. To assure a sound and effective use of this part of the program, the leader's attention is called to two sensitive areas.

First, students may find it hard to be honest with themselves, their classmates, or the leader as they begin to look at their values. Values define the uniqueness and individuality of each person. Fearing judgment on the part of others may cause students to withdraw from a public revelation of their values.

Second, a leader could indoctrinate students with his own values but should avoid doing so. The fear of indoctrination has often prevented any discussion of values. A leader is less likely to indoctrinate students by remembering the following:

There are no right or wrong values. The leader may find that some of his students have values different from his, and the leader's own values may be respected less by some students than by others. Values can only be judged by the individual for himself.

Values are learned. Those learned through exploration and free choice may be more constant and consciously available for use in decision-making than those learned through indoctrination.

A person who has only one set of values that are applied automatically, without being examined, functions more like a machine than a human being. Such a person will not be as capable of determining his unique life style as the person who has thought about his own values.

Objectives are statements of intention indicating what a person would desire, or would like to do If a person knows how to identify his values, then he can use those values in clarifying objectives and stating actions that will be necessary to reach those objectives.

People frequently state their objectives and goals in vague, non-behavioral terms. For example, a common objective of students might be to become successful or to be a better person. Both of these are vague. What actions should be taken to achieve success or to be a better person? How does a person know when he is successful or a better person? Unclear objectives may reveal unclear examination of personal values. Being successful might be stated as going to college and getting a degree. Or it might be stated as getting a degree from college to enter a profession and to make $30,000 a year by age 40. A student might consider himself a better person if he set clear objectives, for instance, achieving patience with his parents, or being willing to meet family obligations at home. Or a man might have the goal of telling the truth in all business affairs. These objectives can be observed or measured and require that the objective-setter define exactly what he wants.

Information

Learning to find information about each of the alternatives of the decision (where to go, what to ask, what to look for) and evaluating that information are skills essential to the decision-making process. These vital skills are dealt with in the third unit of the student book.

Information can be divided into four parts:

1. Possible alternative actions

2. Possible outcomes (consequences of various actions)

3. Probability of outcomes (relationship between actions and outcomes)

4. Desirability of outcomes (personal preferences)

A person may think he is deciding among the only alternatives available, but if his alternatives could be increased in number, he would increase his freedom of choice. An individual seldom knows all the alternatives that exist, nor has the time to find or consider all of them. However, an alternative that exists but remains unidentified might as well not exist. Sometimes alternatives are believed to not exist because they have already been rejected by a person without serious evaluation.

If a group of students were asked to write down individually all of the possible alternatives available to them upon graduation from high school, a large number of alternatives would probably result. By reviewing the list to discover the alternatives that actually were not alternatives (for instance, teaching in the Peace Corps with only a high school diploma), students would not only appreciate the importance of having a number of alternatives in decision-making but also the need for information about each.

A person's choices are increased if he can create new alternatives based on information. The students' list mentioned above would illustrate how the variety of sources of information represented by a group could be used to create new alternatives. However, if a class were asked to decide on one alternative for the whole group, individuals would experience the difficulties of making group decisions. Such group decisions are frequently complicated by the array of individual values competing for consideration in the choice.

A decision-maker needs to think about the kind of information necessary to him, in order to give direction to his search for information. He may find that he does not know what information is needed or does not have the information he wants. He may even discover that he possesses information that cannot be used.

The kind of information that is sought influences the evaluation of possible outcomes, thereby eliminating some alternatives. The sequence followed to get information may even change the decision to be made. (For example, a boy talks to his father about whether he should go out for baseball or track at school in the spring. The father gives him the information that the boy will not be able to keep his car unless he gets a job after school to support the car. The boy now faces a new decision, that of getting a job or going out for sports.)

Because information affects the decision itself, a decision-maker must consider his sources of information, interpretation of the information, its objectivity, and its relevance.

Besides the usual sources of facts such as printed matter, ideas and opinions of others, surveys, and tests, the individual himself is a source of valuable data. What has his past or present experience provided in terms of information? What has been the overall pattern of his life as reflected in his health records, tests and school records, and leisure time activities? The person who keeps a running account of his life has an added advantage in tapping this source of information in making a decision.

Information obtained from various sources may be accurate or distorted. A friend who hopes for a certain decision may slant the information he gives, or a salesman may exaggerate the facts. A product that advertises certain qualities may be discredited by users of the product. If information on possible routes to Chicago from New York is received from a travel agent, it is likely to be more reliable than information from a friend who has never been to Chicago. A test score may tell a student that he does not have the ability to go to college, but he may be incorrectly interpreting the score.

Awareness of feelings and biases regarding information is vital to obtaining objective data and to viewing them objectively. A student's regard for his father may determine whether he believes everything the father says or disregards everything he says. Influential people, because of their manner, position, or reputation, affect the evaluation placed on information obtained from them.

Finally, ignorance about what information is needed may cause a person to base a decision on irrelevant data. It may be very impressive to know that 80 percent of the students attending a certain university drive Ford cars. However, such data may not be significant to a decision a person is making between a Ford or a Chevrolet.

Continuing to seek information may not always be helpful. It may prove to complicate a decision further, or it may be a way of postponing or avoiding the decision. Deadlines either imposed by others or by oneself are necessary to focus on the point at which the search ends and the decision is made.

Strategy

The final phase of the decision-making process, which is covered in the fourth unit of the student book, requires calculating the risks associated with each considered alternative and applying what has been learned to making the decision. Integrating the previous steps into a decision requires the use of a strategy.

Estimating the risk involved in each possible alternative ties together personal values and the information that has been gathered. Most decisions

involve some risk in terms of possible outcomes. Knowing the personal importance of various outcomes determines the degree of risk a person is willing to take to achieve them. A mother probably would take high risks to save her baby's life and lower risks to arrive at an appointment on time.

Few human decisions are made under conditions of certainty, and most probably are made with a combination of some risk and uncertainty. The conditions under which all decisions are made can be divided into four classifications:

Certainty. Each choice leads to one outcome known to be certain. For example, if a person decides to jump into a full swimming pool, he knows he has a 100 percent chance of getting wet.

Risk. Each choice leads to several possible outcomes with known probabilities. For example, when a person decides to flip a coin to make a choice, he knows he has a 50 percent chance of getting heads and a 50 percent chance of getting tails.

Uncertainty. Each choice leads to several possible outcomes with unknown probabilities. For example, when the astronauts first landed on the moon, there were several possible results but no one knew the exact chances of each outcome occurring.

Combination. Combination of risk and uncertainty. For example, when a person decides to apply to a selective college, he doesn't know for certain if he will be admitted but he can use data to make an estimate of his chances of being offered admission.

A strategy is a plan for making a decision on the basis of values, objectives, information, and risks. Without a strategy for choosing, the decision-maker merely decides at random, which in itself may be a personal strategy. In this sense there is no such thing as "no strategy."

Choosing and using a strategy is an individualized art that can be learned. Some people use certain strategies consistently and others use a different strategy for each decision they make. Several commonly used strategies are discussed below.

The Wish Strategy. "Choose what you desire most." A person chooses what he wishes would happen. This strategy suggests that he select the course of action (make a decision) that could lead to the most desirable result, regardless of risk or cost or probability. In a horse race the choice would be the "long shot." It is easy to use this strategy. Someone only needs to know what he desires most (his objective, discussed in the first unit) and to have some information about the outcomes (discussed in the third unit). He does not need to know probabilities.

The Safe Strategy. "Choose the most likely to succeed." This strategy suggests that a person select the course of action that has the highest probability of being successful. In a horse race, the choice would

be the favorite. It is a little more difficult to use this strategy. A decision-maker needs to know his objective and to have some information about possible and probable outcomes. At the same time he is required to be somewhat more specific about his objective and he needs to investigate information about additional alternatives and their probabilities.

The Escape Strategy. "Choose to avoid the worst." This strategy suggests that a person select the course of action that is most likely to avoid the worst possible result. It is sometimes called the "minimax" strategy because it minimizes the maximum disaster. It "escapes" misfortune. It is relatively easy to use this strategy. A person merely needs to know a little bit of information about outcomes and what he considers the worst outcome.

The Combination Strategy. "Choose both the most likely and most desirable." This is a combination of the wish and safe strategies. This strategy suggests that someone select the course of action that has both high probability and high desirability (sometimes called highest expected value). Although this strategy seems the most logical and reasonable, it is the most difficult to apply. It presents several problems to the decision-maker:

It requires knowing personal values and stating objectives clearly.

It requires knowing alternatives and having the ability to predict possible results.

It requires ability to estimate probabilities or the likelihood of something happening.

It requires the ability to rank the desirabilities or to designate the relative value of something.

Learning about strategies is, in a sense, a summary and review of previous units, as well as being the final step in the decision-making process. By utilizing the review potential of this unit and encouraging students to discuss and practice the application of strategy to decisions, a leader can make effective use of this material.

Effective decision-making requires that the decision-maker be willing to accept the responsibility for the results of his decision. When a person exercises his power, control, and freedom, he must be responsible for what happens.

Building an Effective Setting for the Decisions and Outcomes *Curriculum*

While the Leader's Guide should be viewed as a general guide for leaders trying to teach the decision-making process, there are some

additional teaching considerations presented here that may be helpful to the leader, especially in developing effective group activity.[2]

It is important to recognize that Decisions and Outcomes attempts to teach a process to young people. The leader should not assume that all the materials provided will be appropriate for every group. Content should be altered, revised, expanded, or used according to the leader's best assessment of a particular group's needs.

Often, the leader will find that the group itself is a valuable resource for suggesting new content to meet the process objectives of the course. Consequently, because of the nature of the Decisions and Outcomes program, establishing the initial framework for the course becomes most important. In this connection, the authors have identified a number of teaching concerns that can help the leader establish an effective framework for Decisions and Outcomes.

Introducing the Program

The introduction of a new unit is always an important consideration for leaders, and this is especially true for Decisions and Outcomes. Because of the nontraditional content of the program, and because it focuses on skills in a process rather than on the acquisition of facts, leaders may need to spend more time and effort in orienting students to the objectives and procedures of this course than would be needed for a conventional unit.

Orientation has two specific objectives: first, to catch the students' initial interest and channel their thoughts toward the content of the unit (in this case, decisions and how to make them); and second, to give the students as much information as possible about the leader's goals for the unit and about the procedures that the leader feels are important in working toward those goals. The clearer the leader's goals and procedures are to the students, the less their personal energy will be spent in trying to guess what the leader has in mind. Thus more personal energy will be available for the task at hand.

The introductory activities that follow will be most effective if the leader has a clear notion of his own goals for the course, and if he or she is open and receptive to the suggestions and comments of the students.

---

2. The authors wish to acknowledge the contribution made to this section by Robert C. Hawley. Many of the detailed activities and procedures in the areas of community building, orientation, and feedback were written by Dr. Hawley. These suggestions are explained in greater detail in A Handbook of Personal Growth Activities for Classroom Use by Robert C. Hawley and Isabel L. Hawley. (See "Leader's Resource Guide.")

An Orientation Activity

Pass out a questionnaire containing questions such as:

1. What led you to decide to take this class?

2. How would you like this class to be conducted, and what would you like to do to help the class operate in this manner?

3. What do you hope for from the leader?

4. What do you hope for from yourself?

5. What do you hope for from others in the class?

Ask the students to spend two or three minutes filling out the questionnaires, and then use these as the basis of a class discussion. During this discussion the leader should avoid the appearance of forcing a hidden agenda on the students. For instance, some students may perceive that the hidden purpose of the course is to get them to refrain from using drugs or engaging in other socially destructive conduct. The leader should respond as candidly as possible to such student concerns with an answer such as the following:

Yes, you are right, one of the reasons that the school system has introduced this decision-making program is to help control the drug abuse situation. But our feeling is that the drug abuse situation is really a symptom of a lack of ability to make and carry out meaningful decisions which affect our lives and the lives of others around us. Personally, I feel that drug experimentation is unwise and potentially dangerous. But I am not trying to find a subtle means of controlling your behavior. I'm hoping to help you find skills so that you can make decisions that will lead you closer to your goals in life, whatever they may be.

At the end of the discussion the leader may ask the class to save their questionnaires so that they can evaluate the course at some point during the program and again at the end.

Community Building

Recent research in classroom learning demonstrates that informal patterns of friendship and influence and a feeling of group cohesiveness play an important role in motivating students toward the goals of the group. Far from being a waste of time, the time and effort spent in establishing a sense of community in the group invariably pay off in the ability of the class to pursue common goals, and in the positive attitudes of the members of the class toward those goals. Even in cases where a group has been working together for some time, the leader should not assume that there is an established community. All of the activities in the Decisions and Outcomes program will be more effective if there is a feeling of positive regard and support for one another among the members of the group.

Community Building Activities

Name Tags: Select three or four volunteers and equip each with a magic marker and a stack of 4" x 6" file cards. Have each student go to one of the volunteers and tell him the name the student wishes to be called in the group. That name is written in large letters on the file card and given to the student by the volunteer. When all the students have received name tags, the leader explains that name tags are a good way to get to know each other and that they can be even more useful and fun if they carry more information than just the student's name. The leader can have each student write on the upper right-hand corner of his name tag one place that he would like to live for a year (not his present home); on the upper left-hand corner, one thing that he has in his home that he is proud of; on the lower right-hand corner, one famous living person whom he would like to be like in some way; on the lower left-hand corner, one thing that he is good at doing. Then pass the masking tape around and have each person tape his name tag to himself in a conspicuous place.

Then the class may be divided into groups of four or five. Ask each member to spend one minute telling his group about the words on his name tag, or the leader may proceed with some other activity and suggest that the students use the name tags as the basis for informal conversations between other activities. The leader should wear a name tag bearing the same information and be prepared to share the information with his students if that seems appropriate. At the end of the class the leader may collect the name tags or ask that the students save their name tags for class the next day. Some leaders ask that name tags be worn each day for the first week of class. Extra name tag materials should be available at no penalty for those who fail to bring their name tags to class. Each day during the period of wearing name tags the leader may ask the students to add some new information to them.

Other things that could be used for name tag information: the name of an historical figure that the student would like to be like (or television personality or movie star); three things that he loves to do; five things that describe him ending in -able; five things that he values ending in -ing; his nominee for President of the United States or the world; three jobs that he thinks he would like to try for a year.

All of this information does not need to be shared fully for the exercise to be valuable; the reflective thinking is valuable. A student may object to wearing name tags for a whole week, and, as in any other personal growth activity, his right to pass should be honored. This is a positive focus activity; avoid using items that might have negative connotations.

Notes on Community Building Activities

1. For activities that involve individuals forming pairs and then sharing, it is important for the leader to specify a definite time

limit and adhere to it. This reduces the risk involved in going to a person that one does not know very well because it limits the risk to a brief period of time.

2. The physical arrangement of the room is important at all times, but especially during community building activities. If possible, the room should be equipped with chairs rather than desks or tables. For class discussions and activities, the seats should be arranged in a full circle rather than in rows or in a horseshoe. (The leader should also try to avoid taking a position traditionally associated with power -- such as behind a big desk or in front of the blackboard.) If students are working in small groups, the leader should be sure that no member is left on the outside of a group because of the positions of the desks or chairs. If necessary, he should go from group to group arranging positions so that everyone has an equal opportunity to participate.

Feedback

Feedback comes in continuously. When a student slouches in his chair, smiles and nods his head, stares blankly out the window, or carves on his desk, he's giving informal feedback. This informal feedback is important data for the leader to use in planning and evaluating his work. Formal feedback taken at regular intervals is also important both to the leader and to the student.

Formal feedback lets the leader check the accuracy of his perceptions of the informal feedback and is a means of providing additional information if informal feedback is lacking. More important, however, formal feedback is a way of letting the student know that the leader is interested in student reactions to the class and that he is willing to work toward changing procedures to meet student needs. At a time of life when young people are caught up in feelings of powerlessness over the use of their time, over the events that shape their lives, over the metamorphosis that is taking place in their bodies, the feeling that they can and do have some control over even a small part of their own education is a powerful motivating force. One additional advantage of formal feedback is that it gives students a chance to reflect over the course of their time in class and to summarize and draw inferences concerning the processes taking place in the classroom.

Feedback Activities

Once a week set aside 10 minutes of class time to have the students fill out the feedback form and turn it in to the leader. At the following meeting the leader can summarize the feedback, noting general trends and pointing out dissenting opinions. State how you are going to use the feedback, stating what things you can and can't do at this time, noting that change is always a difficult and uncertain thing, and asking for the help, cooperation, and understanding of the class where necessary.

FEEDBACK FORM

1. How satisfied were you with this week's sessions? (circle one)

1	2	3	4	5	6	7
very dissatisfied						very satisfied

2. What was the high point of your week in class?

3. What factors contributed toward your satisfaction?

4. What could be changed to make these sessions better for you?

5. What can I do to make these sessions better for you?

6. What can you do for yourself to make these sessions better for you?

7. What are some of the special issues, concerns, or questions that you would like to see raised in class next week?

8. Free comment/suggestions/questions/jokes/etc.

_____
NAME (optional)

Please use the back if you need more space for any item.

Another activity to produce feedback is to set aside 10 or 15 minutes for students to write a private letter to the leader. For this activity to be successful it is important that the leader make some kind of written reply and return the letters to the students promptly. Remember that nothing kills this activity faster than commenting on spelling, mechanical errors, handwriting, and so forth. Leaders may choose to make tape cassettes available to students who wish to "talk" their letters rather than write them.

The Evaluation of Decisions and Outcomes

Regular and informal feedback may serve as a kind of evaluation activity that will add to the leader's sense of attaining program objectives. However, more and more demands for program accountability make it especially important that the leader carry out evaluative activities.

This part of the guide is intended to help you get useful feedback on how well the materials are being received. Also included are some suggestions on how you might best incorporate into your sessions the self-evaluation exercises for students.

Some Tips on How to Evaluate

It is extremely important to get continuous input on your successes and failures. Do not wait until the end of the sessions. This means you need "informal" as well as "formal" evaluation. Experts in evaluation refer to "formative" evaluation, which means gathering input that provides a rational basis for altering and changing programming and procedures as you go along. You should also have an end-of-session evaluation (experts often call this "summative" when it is used to decide whether the program as a whole was worthwhile or not), especially if you need to justify the program to administrators or the public.

What are some ways of evaluating?

Informal Input from Students

Talking informally to students, as discussed above, before or after sessions is an obvious way to gain feedback. This has the disadvantage of not being scientific in the sense of getting representative samples, and you can misinterpret the feedback because of particularly vocal minorities. However, if you encourage and maintain an open attitude that allows for criticism and suggestions about things that students want, this is a very effective way to "evaluate." It also helps establish the kind of atmosphere in which discussion and critical thinking are encouraged -- including the decisions we are making "here and now" in this class.

Sometimes making the last part of group sessions a review of what was or was not meaningful can be a good technique. Some leaders may find that this does not fit their style. But if it works for you, you may want to end some sessions this way, particularly when you sense things are going too slowly, or not the way you would like. Simply say: "We have about 10 minutes left. Let's take the time to review what was valuable and what was not valuable about what we covered today, and how we covered it. O.K.? Who has any thoughts?"

Formal Input from Students

Written evaluations can be helpful if they provide data upon which you can act. Some forms are included at the end of this introduction that can be used to get input from students. You may wish to alter these to fit your own sessions and purposes. Whatever format you use, evaluate each question by asking: "If everyone answers this question the same way, does it tell me something about what to do more of, less of, or continue doing as I am now?" If the implications of the students' response are unclear to you, then perhaps the question is inappropriate or improperly stated.

Do not ask questions that relate to personal characteristics or things that you cannot change. One reason many teachers do not continue to get student input is that it can be hurtful to the student. This usually happens because the wrong questions were asked. Since very few teachers or counselors can effectively appeal to or reach every student in a personal way, asking questions that are too personal can be discouraging. However, questions that relate directly to group procedures and activities that are not personal are potentially very valuable and not potentially hurtful. In fact, there is evidence from research that student input is the most reliable source of assistance to leaders in evaluating what they are doing in a classroom.

There is another significant point to acknowledge. When the decision-making materials were originally evaluated the authors found one very important thing. Exercises that were effective in almost all situations were at times not successful for some particular leaders or with some particular groups. There are so many variables that contribute to how a group reacts to materials and exercises on any one particular day that nothing seems to be universally successful. Materials that have been tested and evaluated as successful in many settings cannot be classified as perfect for every situation.

Parents and Administrators in Relation to Evaluation

You may wish to get formal input from parents and school staff about Decisions and Outcomes. Whether you do or not, there are a few things to think about with regard to these important groups.

Parents are likely to evaluate these materials on the basis of what they are told about the program. If you get input from students that is honest and straightforward, parents will most likely hear the same. Also, if you include some exercises in which students interview their own parents, or if some of the exercises are discussed at home, you will probably get positive reactions. Most parents hope that their children's education will include experiences that will help their children cope with the world as they see it -- and parents like to know about these experiences. The decision-making materials are aimed at precisely this kind of experience.

Administrators are likely to evaluate programs on the basis of comparative costs and efforts in relation to outcomes. An outcome they are often interested in is the public reaction to content, since support for the schools depends on the public. If students and parents are convinced that the time spent teaching decision-making is valuable, administrators will be influenced by this feeling. If you can produce data on student learning outcomes, another important plus is added to a positive evaluation. Thus, end-of-sessions "learning outcome" evaluations are needed as well as ongoing student input to help make the sessions more effective.

Some Student Input Formats

On page 20 there is a progress evaluation form that can be used to get input early in the sessions. It is not personal and emphasizes activities that can be added or deleted from the sessions. On page 21 there is an end-of-course instrument that evaluates both the leader and the course (you may not wish to use both parts). Pages 22 and 23 provide open-ended instruments, the first of which is for input during the course, and the second is to be used at the end of the course. These have the disadvantage of not being quantifiable, but they can be used in conjunction with more objective instruments.

There are nationally standardized instruments that can be used for the evaluation of decision-making programs. For large scale formal evaluations, the leader should consider using these instruments or use them in conjunction with the ones suggested in this guide.

Also, the Decision-Making Program newsletter for leaders to be published occasionally will contain reports of evaluations by users. We will provide an "exchange corner" on evaluation efforts for leaders' assistance. Finally, consultation and workshops are being organized for users of the decision-making curriculum. You may wish to avail yourself of this individualized help with evaluation efforts.

Using the Student Self-Evaluation Exercises

At the end of each unit in the student book there is a checkpoint or a self-evaluation. These exercises are intended as a review, a reinforcement, a self-assessment -- not as a test.

The question of whether to assign formal "grades" to students on the basis of their performance in the Decisions and Outcomes sessions will probably influence your use of these self-evaluation exercises. If you plan to assign formal grades for the program, it is probably best not to have the self-evaluation and checkpoint exercises be part of that grade. These exercises should encourage honest self-evaluation and should not be used in a way that discourages open self-criticism.

You could use the exercises as a private assignment in class or as homework, for small group discussion, or preceding the unit as a starter or for prelearning motivation. These activities can be even more meaningful if the students add their own questions.

If the students keep the self-evaluation materials, they can be used for comparisons later. It is hoped that this program is only beginning or enhancing a life-long process for the students of learning decision-making skills and evaluating the results. If students are to improve and grow as decision-makers, it is important that they evaluate their performance as they move through the program. The goal of Decisions and Outcomes should be the student's transfer of skills from classroom and group activities into personal behavior that is more effective than it would have been if he had not taken the course. Learning to evaluate one's skills as a decision-maker is an important key if this transfer is to take place.

Innovations

As is true with any guidance or teaching procedure, each leader's approach will be unique because of his own individual style and the changing nature of his learners. However, each leader might very well learn some new and potentially useful techniques or exercises from other leaders.

For this reason the authors suggest that leaders take notes on the methods they use in teaching these units and on any new materials they employ. If leaders write down what has worked well for them and send a signed copy to the address below, they will receive in return suggestions from other leaders. In this way the good practices and innovations that are developed by individual leaders can be shared with their colleagues across the country.

Following the fourth unit, "Applying Skills" in the Leader's Guide, is an "innovations" page. Please use the format displayed on that page to send in suggestions. Leaders are asked to write legibly or, preferably, to type their descriptions. Each completed innovations page should be sent to the address below.

Training Program

Training workshops will be available for leaders of these programs. The workshops will provide demonstrations of successful techniques and will

use curriculum content from Deciding, Decisions and Outcomes and new exercises as they are developed. Inquiries should be sent to:

Decisions and Outcomes
College Entrance Examination Board
888 Seventh Avenue
New York, New York 10019

SURVEY OF STUDENT OPINION ON DECISION-MAKING SESSIONS
(PROGRESS EVALUATION)

Your suggestions are needed to make these sessions as valuable as possible now, before we finish.

SPECIFIC ACTIVITIES. Rate each of the learning activities below on the following scale. Rate these activities as you have found them in your decision-making sessions, and on the basis of whether they helped you learn or not.

A = Definitely need more of this type of activity
B = Probably could use more of this activity
C = Right amount of activity for this type of class
D = Probably could use less of this
E = Definitely could use less of this
F = Can't rate or not sure

RATING		ACTIVITY
_____	1.	teacher lecture to class
_____	2.	class discussion (total class)
_____	3.	small group discussion (class broken up into groups of 10 or less)
_____	4.	teacher explanation to small group or individual
_____	5.	doing an exercise and discussing it
_____	6.	doing a self-evaluation exercise to see how you view yourself (but not showing it to others)
_____	7.	role playing a decision-making situation
_____	8.	doing a simulation of a decision-making situation
_____	9.	individual assignments such as interviews of people (friends, parents, etc.)
_____	10.	having outside teachers or community people visit and talk about topics related to decision-making
_____	11.	preparing and taking tests on topics covered
_____	12.	viewing films, filmstrips, or listening to tapes on decision topics
_____	13.	having students lead part of the sessions
_____	14.	(add your own) _____

Any comments about which kinds of activities in decision-making sessions that help you to learn more effectively and enjoyably (or detract) _____

_____

_____

END OF COURSE EVALUATION

This questionnaire has been designed to allow you to express your opinion about the quality of leadership and activities you have experienced in the decision-making sessions. Please rate only on the basis of your experiences in these sessions.

DECISION-MAKING EVALUATION

LEADER EVALUATION

Please circle only one answer per question
PLEASE CIRCLE THE DEGREE TO WHICH YOU THINK THE LEADER

	ALWAYS	OFTEN	SOMETIMES	NEVER	DOESN'T APPLY
1. Allows the class choices in direction of activities	1	2	3	4	5
2. Encourages interaction among students during discussions	1	2	3	4	5
3. Encourages students to express different viewpoints	1	2	3	4	5
4. Connects learning with important personal decisions	1	2	3	4	5
5. Informs students of grading policy early in the course	1	2	3	4	5
6. Is available for individual conferences outside of classroom or group sessions	1	2	3	4	5
7. Helps students understand objectives of activities	1	2	3	4	5
8. Uses a variety of classroom or group activities	1	2	3	4	5
9. Makes clear the relation between what is discussed and how you can use this in your real life decisions	1	2	3	4	5
COURSE OR GROUP SESSION EVALUATION					
10. Exercises used were valuable in learning	1	2	3	4	5
11. Role plays used were valuable in learning	1	2	3	4	5
12. Simulations used were valuable in learning	1	2	3	4	5
13. Class discussions (total class) were valuable/interesting in learning	1	2	3	4	5
14. Self-evaluation exercises were valuable	1	2	3	4	5
15. The sessions overall increased my knowledge about deciding in important life situations	1	2	3	4	5
16. The sessions overall increased my ability to cope with important life decisions	1	2	3	4	5
17. I have used what I learned in the sessions outside of class	1	2	3	4	5

COMMENTS _____

NAME_____ DATE_____

MIDDLE OR EARLY SESSION EVALUATION: PROGRESS REPORT

We wish to have suggestions from you in order to improve the decision-making sessions. Please give your suggestions as to how to conduct the class.

1. What kinds of activities would you like to have more of in these sessions? (examples: role playing, small group discussions, lectures, projects outside of class)

2. What kind of activities would you like to have less of in these sessions?

3. Any other comments about things you would like in these sessions?

NAME_____ DATE_____

(option 1)

END OF COURSE EVALUATION

We need to know what you think you learned in the decision-making sessions and whether you feel they were of value to you.

1. What things do you have more knowledge of because of these sessions? (examples: my values, people's approaches to decision-making, etc.)

2. What things do you think you can handle better in your life because of the sessions? (examples: personal decisions about jobs, marriage, human relations)

3. Was the time you put in worth what you received from the sessions? ___Yes ___No (Why?)

4. How would you evaluate these sessions compared to other courses?

5. Do you think you covered things in these sessions that are not covered elsewhere in school? ___Yes ___No (Explain briefly)

THE STARTING POINT

Introduction

"The Starting Point" can be viewed as an introduction to decision-making for students who have never been exposed to the process before or as a good review (or transitional unit) for those students who have had some exposure to the decision-making process and who are trying to become more effective in its use.

Before beginning the program it is especially important to explain clearly what the objectives of the course are.

One way to begin is to discuss some decisions the students can recall making and how they went about making them. This can serve as an excellent way to illustrate the different processes used, and talk about their effectiveness or ineffectiveness. Also the leader might discuss a decision he faced recently and highlight the factors involved in a decision-making situation. Current events reported in daily papers provide excellent introductory material also.

Or the leader might play the part of the devil's advocate and propose that learning how to make decisions is not important. For example, there are people who don't vote, people who let others decide for them, and people who "take things as they come."

The introductory quotes at the beginning of this unit can be used to stimulate discussion about decision-making and how important it is to our lives.

As mentioned in the introduction, leaders should establish immediately the fact that work in decision-making is a personal matter and, unlike problem-solving, the "correct" decision is correct only for the individual decision-maker. Consensus is not to be sought in the practice situations in this program.

The leader should make sure that students understand that all ideas are welcome, and that responses to various exercises will not be shared with the class unless the individual agrees to share them. Likewise, any individual (and the leader) can exercise his right to pass at any time if he does not wish to participate or to share his reactions with the rest of the group.

Leaders might try some of the community building exercises described in the introduction before beginning "The Starting Point." These activities help students warm up to group activities and provide a setting for trust and cohesiveness within the group. The exercise that follows is another attempt to attain group cooperation and at the same time to introduce the kinds of things that are involved in making a decision. In this exercise you ask students to reflect on a recent decision. Ask students to write a sentence about a decision they have made during the past year that has affected their lives in some way. Make clear that this is private writing and that you will not collect the papers. The writing process often

stimulates thought more readily than mere reflection on an incident does. After the students have had a minute to reflect and write, ask them to try to determine what percentage of that decision was based on facts that they had acquired about the objects of the decision, and what percentage was based on feelings. For instance, if the decision was to buy a car, what percentage was based on facts such as price, estimated reliability, fuel consumption, and so forth, and what percentage was based on feelings such as a preference for Fords over Chevrolets, blue over red, hardtop over sedan.

Then ask the students to estimate the length of time involved in making the decision -- thinking about it, getting facts, discussing it with others, etc.

The objectives of this exercise are:

1. to help students recognize that they do make decisions that affect their own lives;

2. to help them start thinking about the decision-making process;

3. to point out that both facts and feelings are involved in deciding;

4. to help students see that different people arrive at decisions in different ways.

If the students begin to respond to the questions of facts and feelings with the false notion that you are trying to teach them that "facts are more important than feelings," or "a lot of time should be spent making a decision," then you should clarify the objectives of the exercise before continuing the discussion.

As mentioned above, it may be helpful for you to discuss an important personal decision of your own with the class, or something that is current and well-known nationally or locally.

When students have a better idea of the nature of decision-making and what goes into the process, they will be more motivated to move into decision-making exercises. However, no exercises will be successful if they seem unimportant or unreal. All of the exercises should be read carefully and only those that are appropriate for the particular group should be used. The students can develop their own exercises if content is to be altered. Decisions and Outcomes constantly stresses student involvement in activities that are personally relevant for most high school and college students. Whenever possible the student should be permitted to be involved in:

1. setting the goals or objectives;

2. determining the procedures to be used in moving toward those goals or objectives;

3. regulating the conditions and/or rules under which he and the other members of the task group will work;

4. influencing the ongoing conduct of the class through formal and informal feedback.

The following activities and procedures can help achieve greater student involvement.

Activities for Achievement Motivation

The effectiveness of these motivational techniques will depend to a large degree on the leader's ability and willingness to make use of the ideas and suggestions generated by the students in planning and carrying out the activities of the class. It should be noted that any attempt to make students believe they are realistically involved in setting goals, procedures, and rules, if in fact they are not, will lead to frustration, resentment, and disillusionment.

Following are some suggestions for helping the students to express their own hopes for the course.

Ask the class to reflect on the hopes that each individual has for the class over the course of the term and write them down on a piece of paper. This procedure should take five minutes; do not collect the papers. (Note: It is important to stick to the time set for reflection despite the fact that some students may appear to finish early. As students are trained to realize that there really will be time for reflection, many will use the period productively. If it appears that the class won't hold out for five minutes without major disruption, then the time for reflection might be set at three, two, or one-and-a-half minutes.)

Divide the class into groups of four to six students and give each group the task of discussing their hopes and preparing a report that will list some of the group's hopes for the year. Allow 10 minutes for this task. At the end of 10 minutes, each group is expected to give its report in any manner it chooses. These reports should be recorded (tape recorded, if possible) to help the leader in planning for the course.

Next, ask the small groups to discuss what things they can do to help realize their hopes, and what things they can do if the direction of the class is moving away from their hopes. This can be followed by a second group report, although one round of group reports is generally enough for a class.

A useful device to employ periodically throughout "The Starting Point" and other sections of Decisions and Outcomes is brainstorming. This is a particularly effective way to encourage all students to participate. It also establishes early that the group will listen to and expand on all comments and concerns regardless of how unusual or far-out they might appear to be.

Brainstorming is a tremendously valuable tool in creative problem-solving and decision-making. The object of brainstorming is to produce a great quantity of useful ideas about a given subject or problem in a relatively short period of time. This great quantity of ideas serves as a data base for later organization and evaluation. The richer and broader this data base, the more likely it is to throw new light on a problem or lead to a creative solution. The conscientious use of brainstorming produces a versatile, creative, mind-expanding way of thinking. The rules should be reviewed often, and it is probably a good idea to discuss the rationale with the class.

Rules of Brainstorming

1. Express no negative evaluation of any idea presented.

2. Work for quantity, not quality -- the longer the list of ideas, the better.

3. Expand on each other's ideas; elaborate wherever possible.

4. Encourage zany, far-out ideas.

5. Record each idea, at least by a key word or phrase.

6. Set a time limit and hold strictly to it.

Brainstorming helps to generate a large volume of ideas. It encourages germs of ideas, half-formed ideas; it gives ideas with some merit and some drawbacks a chance to grow and develop. And it turns group problem-solving away from a competitive atmosphere toward a collaborative venture in which the main adversary is the problem to be solved, not another person in the group.

Brainstorming can be done by the entire class or in small groups. (Groups of five or six are small enough so that no one need wait to offer his idea, yet large enough so that the variety of ideas is stimulating.) When the entire class brainstorms as a group, it may be necessary to have two or three recorders at the blackboards so that they can keep up with the fast-flowing ideas. (Brainstorming is no time for raised hands or other such formalities.) When small groups brainstorm, it is important to cross-fertilize by having the recorder for each group read the group's list to the entire class; or, where time is a problem, groups can pair and read their lists to each other. Another way of sharing group lists is to have each person in the group choose the idea he likes the most from the group's list, and then have the selected list read to the entire class.

Warm-up brainstorms should be on playful subjects to encourage and show acceptance of zany, far-out ideas. Warm-up brainstorms are designed to free the mind from practical considerations and to encourage flights of fancy. Here are some possible topics for warm-up brainstorms:

1. You have been stranded on a tropical desert island. Food and water are no problem as the island can provide these in plenty. You have only one artifact of civilization -- an empty Coke bottle. Brainstorm uses for the Coke bottle. (Time limit: 4 minutes.)

2. Brainstorm ways to improve on the common bathtub. (Time limit: 4 minutes.)

3. Brainstorm uses for a fire hydrant (or junk automobiles, broken baseball bats, tabs from flip-top cans, old wheel covers). (Time limit: 4 minutes.)

4. Brainstorm ways to send love to someone far away. (Time limit: 5 minutes.)

5. Brainstorm new kitchen appliances. (Time limit: 7 minutes.)

Brainstorming is a good method for finding alternative solutions in decision-making. An individual can bring a problem for alternative searching to a small group, such as, "How can I get along better with my brother?" Then he can spend one or two minutes filling in the group on the background of the problem. The group then brainstorms solutions to his problem for a specific amount of time (usually no longer than 10 minutes). The individual acts as recorder.

The class as a whole can brainstorm problems that young people their age might have. Then one problem is selected for an alternative search by the whole class, or the class may divide into groups, with each group choosing a problem from the list. Sample alternative search questions:

1. Ways to spend spring vacation.

2. Ways to make Thanksgiving more meaningful.

3. Ways to increase your circle of friends.

4. What to do if your good friend offers you LSD.

5. Ways to save money.

Decision-Making: Why It's Important
(page 5 of student book)
Decision-Making: What Is It?
(page 6 of student book)
Becoming a Skillful Decision-Maker: What Is Involved?
(page 7 of student book)
Decision-Making: The Process
(page 7 of student book)

After the students read the introductory material on decision-making in "The Starting Point" (pages 5-7), the leader can review the material by discussing the diagram on page 7. Ask the students to compare the ideas in this diagram to the methods they used in making a recent decision.

Relative Importance of Decisions
(page 8 of student book)

The first exercise in this section provides an excellent vehicle for an early definition of what makes decisions important and how values relate to the determination of what is important.

Have the students rate the relative importance of the decisions listed on page 8 and ask why some decisions are more important than others. It is especially important to discuss decisions that students feel are not under their control. Often, a student will rate a decision as not being under his control, but after discussion will recognize that he does have some control over it. Each number can be tallied -- for example, what decisions were rated 1 (or 2 or 3) and why? Then discuss the ratings for each category on page 9.

Some students will assert that a decision is very important to them, but that it did not or does not involve a lot of study and planning. Other students will rate one decision as routine or automatic and a similar decision as one requiring a lot of thought. For example, "what to eat and when" might be fairly routine in most cases, but when it involves a choice of any restaurant for a special occasion, it may require a great deal of thought. In cases such as this, it is useful to ascertain why different circumstances affect the level of importance attached to the decisions an individual makes.

On page 9 it is suggested that the student explore the decisions he has made over the past few months or even over the past several years. Often, a student will rate a decision as being most important because he recalls rather vividly the consequences or outcomes of his decision.

What Is a Good or a Poor Decision?
(page 9 of student book)

It is hoped that this exercise will help students understand that if a well-considered decision is made, it does not necessarily follow that the outcome will be good. A good outcome is defined in terms of what the decision-maker values and prefers. People have different ideas about what a good outcome is, but a decision is only good when good decision-making skills have been applied.

It is especially important to make the point that there may be uncertainty in the result or outcome that follows even a well-informed, well-considered decision. The example of calling a coin cited in the student book demonstrates this point. In the case of a coin toss, a person knows all there is to know. However, the result cannot be guaranteed; he has a 50 percent chance of being correct. In the example given, the winning toss is tails. The decision to call heads would be a good decision, but a bad outcome. The decision to call tails would be a good decision with a good outcome.

To further illustrate the fact that having complete information increases the chances of getting a good outcome, the leader can flip a coin. Before revealing the results to the class, the leader looks at the coin and then asks the class, "What chance do I have of calling the winning toss?" Because the leader had perfect information, he was sure of the good outcome. The point should be made that calling a coin is different from most decisions because it is possible to have perfect information. However, you should stress the point that in order for a decision to result in the most satisfactory outcome, good decision-making skills should be applied using information that is as nearly complete or perfect as possible.

Decision versus Outcome
(page 10 of student book)

The two cases presented on this page will help students make the distinction between "decisions" and "outcomes." The questions on page 10 will give evidence of whether the students are able to distinguish between the terms.

Decision Agent
(page 11 of student book)

This exercise emphasizes the kinds of decisions that are important to individuals and illustrates the importance of values in the decision-making process.

Before beginning sections A, B, and C, a discussion about assigning decisions will help make this exercise more meaningful. For example, you might ask what things people tell their stockbroker or architect when asking for advice. Do people usually let the stockbroker or architect make

the decisions for them? Do doctors sometimes make decisions for us? Do they know all we want them to know about us? Are they experts? Ask students if some of their decisions are made for them by someone else.

Sections A, B, and C can be completed separately with class discussion after each section, or sections A and B can be completed together. Often students will find that they are tempted to write the same three decisions in A and B. This insight is usually puzzling and leads to lively discussion.

It is interesting to ascertain what kinds of decisions are assigned to the agent and what kinds of decisions the individual chooses to make himself. Some people are reluctant to assign any decisions at all to the agent, others will assign decisions that involve long-range life styles (for example, what career to choose), and still others will assign decisions that relate only to material things (for example, what car to buy). Part C of this exercise can be especially revealing in that it calls for a statement of values on the part of the individual. Sometimes it shows that the person is unwilling to assign a decision at all because he requests in "C" that he have a chance to review the decision made by the agent.

An important aspect of decision-making should be discussed here. That is, if we let others make decisions for us, we are likely to give up some of the freedom and some of the control we have over our own lives. A student's difficulty in responding to the "Decision Agent" may be an expression of his reluctance to transfer his control to another person.

Other examples will emphasize this point -- poor voter turnouts in national elections, the reluctance to fight "city hall," the practice of letting parents or counselors decide what college or career is most suitable. All of these can lead to a relinquishing of freedom and control, as well as to unsatisfactory outcomes.

Self-Evaluation
(page 11 of student book)

The self-evaluation provided in "The Starting Point" will give a good idea of what help individual students need in developing their decision-making skills. This evaluation, which is repeated in the fourth unit of the book, provides a good way to encourage student perceptions of what progress has been made in developing and applying decision-making skills.

A leader might use the results of this self-evaluation as a way of introducing the overall objectives of the curriculum. The self-evaluation also provides a good transition to the next area of study, "The Deciding Self."

THE DISCIPLINING SELF

Introduction

This unit is about values. Each person's identity is unique because of what he values and what he reveals about his values in the decisions he makes. Most people enjoy this unit because they talk about themselves and learn about themselves.

It is impossible to make a decision or to learn decision-making without looking at what one values. A person chooses between a variety of alternatives on the basis of what he wants or values. Values are crucial to every part of the decision-making process.

What people value affects:

...the "goodness" or the "badness" of possible alternatives

...the objectives a person seeks

...what action will be taken

...the amount of risk a person is willing to take

...what information is required to make a decision

...how a person evaluates the information collected

...the criterion (strategy) used for deciding

...the judgment of the outcomes

Most people do not know what they value or the priorities (ranking) of those values. Therefore, an objective in teaching decision-making is to teach people to identify and clearly define what they do value. After doing this they can use these values in making more satisfying decisions.

In teaching this unit, the leader should keep these things in mind:

1. Values are learned. This means that people have different values, seek different objectives, desire different outcomes, want different information, and so forth, because of their background.

2. It is difficult for people to make decisions when they are unsure about what they value.

3. An effective decision-maker is one who is very clear about his own values.

4. People may not give much importance to learning decision-making, but they do desire knowledge of themselves. In finding out what they value, they are learning part of the decision-making process.

5. So that students can learn what they value, it is important that the leader not evaluate the values they share or pass judgment on what they say about their values.

In this program the authors stress that values are determined on the basis of what a person prizes, cherishes, or esteems, and that a person's behavior expresses his values. The exercises are intended to help the student progress from clarifying values to applying those values in decision-making situations.

"What Do You Want?" reveals what people "esteem." "What Would You Do If...?" illustrates the sorting out of what is prized or cherished when one is not restricted by certain limitations. "What Do Other People Value?" illustrates how important behavior is in revealing values. From these exercises students begin to recognize values and to clarify their own values.

"Pete's Day" makes the transition to the application of values in decision-making. This is a useful exercise because it is relevant to everyday life. It illustrates how behavior expresses values, and how values determine important decisions. It also points out the problems in making decisions when one is unclear about his values. The last exercises are to give students practice in using values to make decisions.

Throughout the exercises, suggestions are given for supplementary activities to assist students in their learning. A leader can choose from any or all of these suggestions and exercises depending on the needs and progress of students in the skills being taught. Students do enjoy them and may ask for more.

Alice in Wonderland
(page 13 of student book)

This quote is given to provoke discussion about values. It is an easy point of departure and can lead students to talk about where they want to go. Do they know? Does it matter? Who decides? Elicit from the students whether they feel they have the freedom to decide. If they do, then they will want to know something about their own values. Do they have control? If so, what is necessary in order to control where one goes? Do they want to have power over what happens to them? What is necessary to have this power? What is the basic thing for deciding what a person wants to do with his life?

Let the students be open, rambling, and contradictory in their discussion. From what is said you can choose points that will illustrate the fact that many people don't know what they want to do or where they want to go. It is important to learn about what one values.

What Do You Want?
(page 14 of student book)

This exercise is intended to help students think about the difference between what they say they value and what they actually do value, and to recognize which is more important.

They probably will experience some frustration and difficulty in completing the exercise. Acknowledge to them that this process is difficult, but that no one is going to judge what they say or evaluate their actions. When they have finished, begin the questioning by asking: Did they do something recently about what they wanted? If not, why not? What was most revealing to them -- having to think about what they wanted most in life or thinking about what they had done about those wants? How did they decide what they wanted most in life? What criteria did they use?

You could follow this by asking them to write down the three most important things they did in the last three days, and the reasons they did them. Are any of these related to what they said they wanted most in life? If not, does this change their decision about what they want most in life?

It is important to leave this exercise with the students continuing to think about what they really want and their use of the freedom they do have to get what they want. You want to illustrate that people really are unclear about their values. This exercise can be repeated later with the students.

What Would You Do If...?
(page 14 of student book)

Sometimes a person uses excuses to avoid looking at his values, or to hide what he really values, or to explain his actions. This exercise forces students to get outside their own excuses and to fantasize. In so doing students are led to consider what they really value. This exercise should release the students from restrictions that would normally apply to them and allow them to formulate values on different levels.

On the board write some of the actions the students said they would take as President. Ask why different students might do different things. What determines this?

Move on quickly to the $1,000,000 category. Ask students what their proposed uses of money mean to them. For example, if one students says he would take a trip around the world, ask what this would give him and why it is important to him. You want students to realize the connection between what they really value and what they choose to do.

Finally come to what they say about themselves. Ask if they found this section easier or harder to fill out than the other categories. Why? What is the difference between this category and the others? What do they feel is keeping them from doing these things?

Choosing a variety of situations helps students think about their values at different levels and in different areas. You could ask them to assume that they were in all three situations at the same time -- President with a million dollars and able to do anything they wanted in the next year. Then have them rank the order of their suggestions for all three categories.

Other possible situations could be:

1. You were principal of this school.

2. You could change three things about yourself, which would you change?

3. You were 10 years older (or 10 years younger).

4. You could live any place you wanted to.

5. You could be any person you wanted to be (who would you be and what would you do?).

6. You were your mother or father.

What Do Other People Value?
(page 15 of student book)

This exercise illustrates the connection between values and behavior. We infer peoples' values from the way they act. The more chances we have to observe another's behavior the more likely we are to evaluate what that person values. The exercise also illustrates that values are learned. The expectations and demands of different conditions in our lives contribute to the values we hold.

If you have had students do the previous exercises they will have already talked about what they value. In that case, the first part of this exercise could be omitted or the students could add to this list some of the things they have already talked about in class. You might start the exercise by having the students convert single words into phrases or sentences to illustrate that actions and beliefs can be valued also (for example, "getting ahead in life," "believing in Jesus").

Then ask them to think about the people listed in the exercise and write down what they <u>think</u> is most important to each of the six people. It is not necessary that they reveal specific people they may be thinking of as they make these judgments. Assure them that these are assumptions they are asked to make.

The students can then discuss which people were the easiest to estimate and the reasons for that. Then for each category ask them to volunteer what they wrote down and list these things on the board. Begin with the high school teacher (if you are teaching high school students) or a

category with which everyone in the class has equal contact. After the list is completed ask what led them to believe that certain things would be valued by people in the various categories. From their answers you will be able to show that behavior frequently suggests what people value.

Further points to bring out:

1. A school teacher and a businessman have had different training, different backgrounds, and have different desires (objectives) related to their professions and their personalities. But even among teachers there may be differences, and among businessmen there may be differences.

2. The demands of a job and the people with whom one associates affect the values a person learns. What would some of these demands be?

3. People's values lead them to choose different occupations. What might be the values of a person choosing to go into teaching as opposed to the values of a person choosing to become a Congressman?

4. Ask the class to agree upon three to five things that teachers in this school might value; students (twelfth grade); parents; etc. Now compare the lists. Are they different? Why? Why not? A research project could be developed from this in which students would interview a group of students, a group of parents, a group of businessmen, etc.

To Decide or Face the Consequences: Pete's Day
(pages 15-16 of student book)

If you used the Deciding program you will remember the story of Mike's day (pages 7 and 8 in Deciding). "Pete's Day" is a version of this story with an older student. It is intended to provide a transition from generalizations regarding values to specific use of them in everyday decisions. "Pete's Day" illustrates the importance of being clear about what one values and the effect of delayed decision-making.

Read the story to the class as they follow along. After you have finished and before there is any discussion, ask the students to list the five most important decisions (and to rank the order of importance) that Pete had to make. When they have finished, start the discussion by asking for volunteers to list their first choice and the reason for it. It is generally more useful to ask all members of the class to list their first choices before getting into second and third choices. The purpose of surveying is not to take a vote, but to stimulate their thinking and to provoke discussion of what makes a decision important. Have two students whose first choices differed discuss the reasons for their choices. Try to get the students to think; don't try for a consensus.

Following is a list of some points that may come out in the discussion or that could be brought out.

1. The chain reaction that may result from decisions, that is, going to Gordon's party, avoiding the chemistry test, being late to basketball practice, etc.

2. Not making a decision may create a series of undesirable decisions a person has to face later.

3. Decisions made in crisis may reveal more accurately a person's real values.

4. The importance of the consequences determines the importance of the decision.

5. The opinions of others affect the importance of a decision.

6. Personal values and group values may differ.

7. The importance one attaches to the opinions of people who are esteemed by the person, such as the coach and father, as opposed to the opinions of the person's peer group.

8. How one protects oneself at the expense of another. (What if Tom really did not take the wallet?)

9. How does one reverse the trend of complicating decisions? (Where should Pete start?)

10. What decision does the class think Pete will make? Will he go to the basketball game with his father? Or what other alternative might he pursue? Why?

If there is time you may want to have the students write down which decision they think is the <u>least</u> important and why. From their answers you may find that a decision listed as least important by one student will be listed by another student as one of the top five in importance. This is a very good way to illustrate that people differ in their values. They differ depending on their family background, their environment, etc.

Your class should learn from this exercise:

1. What makes a decision important.

2. How a person's values affect what happens to his life.

3. That knowing very clearly what one wants makes it easier to make decisions and helps one to make better decisions.

4. The importance of the decisions one makes each day and the implication these decisions have on the consequences of one's choices.

Establishing Objectives
(page 18 of student book)

After reading this page, it might be useful to have students write down what they believe are five of the most important things they value, listing them in order of importance. Because the students have been talking about values and themselves, they should have made progress in being able to identify the things they value. In doing this exercise ask them if they have learned anything about their values and if the exercises have helped them clarify their values.

What Is Your Career Plan?
(page 19 of student book)

The purpose of this exercise is to teach students to be precise about what they want to achieve (their objectives) so that they can be:

1. clearer about what information they need;

2. better able to estimate possible outcomes;

3. clearer in what actions they should take to reach these objectives;

4. able to evaluate whether or not they reach them.

The skill of establishing objectives from values is a difficult one. It requires that a person be able to look at what he values, clarify it for himself, understand the importance of what he values in all his decision-making, and rank his objectives. If students are still unable to do this, then further exercises should be used to help them reach this point.

A precise objective is a clear objective; one that is easily understood by others and that can be evaluated by others if it is reached. The objective "to get a good job" is not clear. Good is a vague and imprecise word. "To get a job that pays at least $10,000 a year" is a clear objective. It helps a student answer all four of the categories listed above. Before attempting to teach this exercise, try to write three or four clear objectives for yourself, so that you understand the problem of articulating values and objectives.

Approach this exercise by asking students to take one or two of the values listed on their review list (in "Establishing Objectives") or the values listed in "What Do Other People Value?" on page 15 and rewrite these so that another student can understand exactly what each means, without further help from the "owner." Then ask them to write the values as they relate to different categories of decisions -- how their values would be used in establishing objectives for summer job choice, use of free time, expenditure of money, etc. After they have done this they can go into the "Work Values in Job Choice" exercise.

Other possible exercises to supplement or replace the above preparation might be:

1. Ask students to take the values listed on page 16 of Deciding, or the values of Mr. Slagel, Susan, John, and Joe on page 16 and establish clearly stated objectives from them. Or the values that emerge from the newspaper headlines on page 15 of Deciding.

2. The actions suggested by the exercise "What Would You Do If...?" could be matched with clearly written objectives. "If I took this action, what would be my clear objective?"

3. Or you could have each student write down on a piece of paper (without signing a name) a personal objective he or she has. Collect them and read several of them to the class. Have the class decide whether the objective is clearly stated. If it is not clear ask for suggestions of changes that would make it clear. This gives further practice in writing specific objectives.

4. As a part of this unit use the class exercise suggested in the introduction, page 6.

Donald Super's Work Values Inventory (see page 98) has many possibilities for teaching objective-setting. If the students have used the inventory they can practice applying their work values to career choice by choosing a career from a list prepared by the teacher. Translating these values into clear objectives for such a choice should be helpful.

Work Values in Job Choice
(page 19 of student book)

This exercise introduces the areas of risk-taking and probabilities and their relationship to values. Probability is the likelihood of some event occurring. It is related to risk in that the less something is likely to occur, the greater is the risk involved.

Risk-taking takes into account the ranking of one's own values and the chances of achieving objectives established from those values. The stronger a person cherishes something, the more risk he is willing to take. However, resources and other circumstances (including conflicting values) may alter the risks one takes at different times.

In introducing Sally's situation in this exercise you might state that there are some "unreal" aspects to Sally's situation and some information regarding Sally that is not given. But this should not affect the purpose of the exercise. Ask students to make a choice for Sally before discussing the problem. Then you can discuss what information would be helpful in making the decision. Ask students to list the information and the order of its importance that would help to make a better decision for Sally. If you wish, you could collect these lists of desired information and make up

pieces of information to fit the lists. Then continue the discussion the next day to see if having the additional information makes a difference in the decisions made for Sally. You can also ask how much information is needed to feel comfortable with the decision. Some of the points you will want to make in this exercise are:

1. Value preferences and priorities and their importance in job choice.

2. Difficulties in setting value priorities (ranking).

3. The helpfulness of ranking and particularly scaling of values in decision-making. (For example, it makes a difference if security is only half as important as large income or almost ties for first place with it.)

4. The subjectiveness of most probability estimates.

5. Changing probability estimates by the collection of information. (Suggest other ways to influence probability estimates.)

6. Current circumstances (situations) as well as values determine risk-taking.

7. Other alternatives to the probabilities in C1 and C2 (besides C3) that might be created or investigated.

This exercise could be followed by having students establish specific objectives for Sally's job choice from the values discussed previously.

For this exercise and future ones on career choice see Donald Super's Work Values Inventory and John Crites' Career Maturity Inventory in the "Leader's Resource Guide."

Objectives and Choosing a Job
(page 20 of student book)

This simple exercise demonstrates the important relationship between objectives and choice. It shows the relationship between satisfaction with the outcome of a decision and the significance of the original objective.

To make this exercise more meaningful the following variations or extensions could be used:

1. Have one student check or write objectives he would wish to attain in a job. Give this list to another student and have him choose a job for the first student by considering the list of objectives. (Remember the "decision agent" in the first chapter.)

2. Develop a long list of jobs that are available in the local area. Have some students write objectives for these jobs and other students

act as "agents" for them. The students who write the objectives should be asked if the job chosen by the agent meets the objectives that were specified. This will illustrate how well the objectives were thought out -- if they were clearly stated, if their significance was overrated, or if important considerations were omitted.

3. Develop a list of colleges and use the procedure described in 2 above. (Or, a new car, a girl friend, a phonograph record, vacation trip, an entrée for dinner, etc.)

Checkpoint

(page 21 of student book)

This exercise provides practice in stating a desired outcome as a clear objective.

Supplemental Activities

Following are three optional exercises that promote the development of self-concept and self-understanding. This type of education is popularly called psychological education, affective education, humanistic education, etc. Many programs have been developed in this area and quite a lot has been published. After a brief flurry of sensitivity training sessions and encounter group experiences, this kind of education is settling down into some meaningful and respectable activities. Students usually find these experiences interesting, fun, and worthwhile. The "Resource Guide" lists some other possible sources of information.

1. Describing Someone. This exercise focuses on the fact that a person is "seen" by the way he behaves. An impression of someone is an accumulation of observations about their behavior.

It is difficult to describe someone without using physical characteristics (tall, blonde, etc.). But when describing a person's behavior we often use terms that are unclear or interpreted differently (friendly, honest, etc.). A good description of someone in this exercise would be one that describes a person so that any stranger would recognize him or her from observations of behavior after reading the description.

Describe your best friend or someone else by behavior, not physical appearance.

The earlier exercise, "What Do Other People Value?" (page 15 of student book) also illustrates this concept. Students think teachers value certain things because of what they observe (or hear or read) the teachers doing.

2. Self-Concept. The leader can make little use or extensive use of this exercise, depending on the class, the time, etc. It's a decision to be made!

1. Memory and imagination are important ingredients in perceived self-concept. Therefore, learning how to evaluate past and present experiences, and how to predict future performances are important lessons. (What a person has done is the result of past decisions; what he will do is the result of present and future decisions!)

2. Having another person complete the exercise "Describing Someone" for a student may help him to see how others see him. It probably would be best to have several people do it anonymously for one student. How does a person discover how others see him? Does it make any difference to him?

3. The ideal self is also hard to describe. Clarifying values helps a person to see himself more clearly. If there is a big discrepancy between how one would like to behave and how he does behave, there are two possible explanations:

    1. he isn't doing what he wants to do, or,

    2. he is mistaken about what he wants.

4. For an additional activity ask each student to describe:

    1. his perceived self (how he thinks he behaves),

    2. himself as others see him (how others see him behave),

    3. his ideal self (how he would like to behave).

    (Describe behavior, not physical appearance.)

3. Who's Who? This is another way of looking at oneself. It has many possible variations, of course. The leader could list characters from a novel or literature that the students are reading currently. Or a list of historical figures or present-day leaders could be used. Or here is a general list that could be used.

Person	Description
1. Your mother	_____
2. Your father	_____
3. Best male friend	_____
4. Best female friend	_____
5. Brother	_____
6. Sister	_____

Person	Description
7. Wife or husband	
8. President of the United States	
9. Favorite character in fiction	
10. Someone you dislike	

Now look at one's own behavior in relation to the list. Have the students put a circle around those words or phrases on the list above that also describe them. Have students list some words or phrases that describe them but are not circled above. What was learned?

Remember the definition of a decision (page 9 of student book). It is an action. An action is something one does. What one does is behavior. Therefore, "the decisions you make are you."

BEFORE DECIDING

Introduction

This unit deals with the use of information in the decision-making process. Decisions are based on what you know and what you want. The information a person has and gets determines what he knows. People make different decisions because they have different values, but they also make different decisions because they possess different information, and because they differ in their skills in collecting and using information. Although clarifying personal values and objectives is vitally important in decision-making, it is hard to overestimate the importance of developing skills that help in the collection and effective use of information.

Most people are untrained information users -- that is, most people have not been taught how to collect and make effective use of information in making decisions. These are skills that can be learned. Actually, because they have not been taught these skills systematically many people learned some of them improperly. Such bad habits must be "unlearned." It is possible to recognize what needs to be corrected by examining the mistakes that are frequently made.

This unit deals with three major decision-making skills relating to information. These are:

1. Collecting information
   a. Identifying alternative actions
   b. Acquiring knowledge of possible outcomes

2. Evaluating information

3. Applying or using information
   a. Increasing alternatives when desirable
   b. Narrowing alternatives when desirable
   c. Estimating probability of outcomes -- that is, predicting.

Personal values affect not only the decisions people make, but also what information they want or collect. A person's values affect how he evaluates the information he has or collects and how he uses this information in estimating outcomes and in determining the risk he will take. Therefore, as you lead students in these exercises you will be continuing their learning about values.

The first few exercises give practice in recognizing the mistakes people usually make in collecting information and how these mistakes affect the alternatives available to them in making decisions. "The Emotional Impact of Information" leads students to consider how values, emotions, biases, and past experiences influence a person's evaluation of information, including his ability to judge what additional information he may need to collect. Finally, although the last exercises pertain particularly to risk-taking and predictions about outcomes, they are specific examples of applying and using information in decision-making. Since many students have had little exposure to the topics of risk-taking and probabilities, they seem to enjoy the freshness of these exercises. This might be a consideration

important to leaders who have to choose which exercises to use if there is a shortage of time for this unit.

Before making any formal statements about the unit or about information skills, start the class with an open discussion about "bad" decisions they have made in the past. You don't want them to tell you what the "bad" decision was, but why they considered it a bad one. Briefly write their reasons on the board. You might start off with an example of your own and give a reason why it was "bad."

When you have collected a number of reasons, use these as examples to illustrate the need to learn the skills you will be teaching. Perhaps you can illustrate from these the bad habits people have in making decisions. When you have done this, briefly summarize the background information you want to give them and review what they will be doing.

If you have used "What Is a Good or a Poor Decision?" and "Decision versus Outcome" from "The Starting Point" with your students, you could start the discussion with a review of what they said then and make the same points to prepare them for the exercises in this unit.

The quotations included here for this unit are pertinent to particular points to be made in the exercise preceding them. They can be used for stimulating class discussion about these points, or as a substitute for an exercise. Again, before starting the unit look over all the exercises to decide which you can use in the time you have available.

Information Collecting

Examination of the four mistakes commonly made in collecting information is basic to all the rest of the exercises students will do in this unit. The subsequent exercises are illustrations of different levels of these mistakes. Therefore you should take plenty of time on this discussion.

If you did not introduce this unit with a discussion of "bad" outcomes, or if typical mistakes in collecting and using information did not come out in this discussion, ask students to suggest their ideas of typical mistakes relating to information in decision-making. Look for answers such as: "didn't get enough information," "got the wrong information," "influenced by advertising," etc. Then carefully go over with them the four common mistakes (Types A, B, C, D in the first two exercises). As you do, give a specific example for each of these mistakes that would be meaningful to them. For example:

1. Not knowing alternatives. (Not taking a philosophy course you wanted because you didn't know sophomores were eligible.)

2. Not knowing possible outcomes. (Choosing not to call home to tell your parents you had been delayed when they had planned to take you to dinner and a show. You found they had gone on without you.)

3. Misinterpreting importance of data. (You are told by your mother to get your reservation in early if you want to go to camp. You underestimate the value of that information and find that since you didn't get it in early there were no spaces available.)

4. Collecting useless information or irrelevant data. (When you want to buy a car you collect information on the number of people who own foreign sports cars in this country.)

After you have done this, if you have time, do the "Doctor's Dilemma" exercise. This exercise is fun and clearly illustrates the four mistakes. If you don't have time, then skip over to "Gathering Information" for a discussion of the mistakes.

As you start the discussion, use any previous examples that may have come out in the other units. For instance, after reviewing the four you might ask the class to identify any of them in what Pete did during his day, or what the President of the United States has done in the last year. You want them to recognize the mistakes and to identify them in the decisions people, including themselves, are making.

The Doctor's Dilemma
(page 23 of student book)

This very unlikely example was particularly exaggerated to illustrate the four mistakes commonly made. A discussion about some of the following issues could be useful in following up the exercise.

1. In a legitimate situation involving a doctor's diagnosis, which mistake is probably most frequently made?

2. Why do doctors generally not make some of these mistakes? (They have received training in the skill of collecting information and in making decisions. They represent a good model for the value of learning the decision-making process. Also, when the consequences are so severe, people tend to be more careful in the information they collect.)

3. What personal decisions would involve consequences that are so important a person would want to make sure he was not making one of these four mistakes?

4. Which mistake might a doctor or a person make most frequently in a crisis situation, when there is little time to gather further information? How does one prepare for this?

5. Which mistake might be most common if a doctor were tired or if it were at the end of the day when he wanted to go home?

6. What positive and negative effects might a doctor's past experience or extensive experience with a variety of patients have on the decision or diagnosis he might make?

Many of these points will be useful in subsequent exercises, and this exercise prepares students to think of examples from their personal lives.

Gathering Information
(page 24 of student book)

This exercise is intended to accomplish the following.

1. Show that the four types of mistakes are, indeed, common and show up in both big and little decisions.

2. Show that each student has probably made all these mistakes in his own decisions.

3. Show that a person can learn how to avoid or minimize such mistakes.

4. Show that it is of great personal advantage to minimize such mistakes.

There are several ways to conduct this exercise.

1. You can have students complete the blanks with other examples of the four types of mistakes based on any one. Then have the class share some of these examples for further discussion.

2. You can have students complete the list under each category with personal examples. This way they are forced to think about their own mistakes.

3. You can start by having students write a list of examples from their own lives that represent each category. If you did this, it would be interesting to find out from the students which category is the longest, and for which category it was hardest to think of examples. Does this tell anything about which types of mistakes are the most common?

4. Another variation would be to have students take one or two of the examples they have written and write after them the consequences of their mistake and what they would have stood to gain if they hadn't made the mistake.

5. Then have students take one example from their list and think about what they could do to avoid or minimize future mistakes of this kind (other than learning decision-making!). Ask students to share with the class the ways they could avoid such mistakes in the future.

Take time, however, to discuss each of the types to bring out certain issues related to them. Or, if time is short, select the type that seems to be most common to members of this class and discuss this thoroughly. Some of the possible questions that could be explored and the points that could be made would be the following.

A. Not knowing alternatives

1. Do you ever know all the alternatives?

2. What happens if there are too many alternatives to consider?

3. Does time available make a difference?

4. Do you sometimes know about alternatives but forget to consider them?

5. What causes people to forget certain alternatives?

6. Is it a mistake (a bad decision) not to know a desirable alternative if you have no opportunity (no resources) to discover it?

7. What are some of the reasons why people don't know about some alternatives?

8. How does one create new alternatives?

9. How long can you keep looking to be sure you don't overlook alternatives?

An interesting supplementary exercise for the discussion of Type A might be to ask students to consider how one can create new alternatives. Ask them to think of a common desk calendar, or an alarm clock, or a parking meter. Take one of these and write down all the ways they can think of that it could be designed to serve their purposes better. Don't spend a lot of time on this, but use it if you can to provide an example of how people can create new alternatives.

B. Not knowing possible outcomes

You can start by pointing out that most decisions are made in conditions of uncertainty. Most of the time one does not know exactly what the outcome will be. Then use some of the following questions.

1. What is a prediction? How do people go about predicting? How can people learn to predict in most everyday decisions?

2. How would one go about predicting what his chances were to get an A in this class?

3. Why do people usually avoid or dislike the notion of predicting personal outcomes?

4. Is experience an advantage in predicting? Can it be a disadvantage? How?

5. How do memory and imagination help one consider possible outcomes?

6. How does personal preference influence judgment about possible outcomes?

7. Is it helpful to know the probabilities of results? Is it possible? Are outcomes of personal decisions ever certain?

C. Misinterpreting the importance of information

1. What does the word "importance" above mean?

2. Why would someone want to believe a rumor?

3. What are the dangers of asking others' opinions?

4. List some factors that might cause people to misinterpret data.

5. Can you give examples of wanting something to be true so much that you believe it is true? People tend to expect (or predict) events to be more likely when the events are desirable and vice versa.

6. This type of mistake involves the question of validity, or the soundness of information or its basis in fact; and of reliability, which involves the trustworthiness of the data.

D. Collecting useless or irrelevant data

1. What is wrong with collecting useless data?

2. How can one guard against doing this?

3. How does a person decide what information to collect?

4. Some people collect information they already know. Why?

5. Does a person know what information is relevant to a decision? Data may be valid and reliable but not relevant to a particular decision. For example: Data that tell you how many cars have been bought in your town in the last year and the average price that was paid for them may not be relevant to your decisions about what car you should buy when you can spend only $1,000.

Sources of Information
(page 25 of student book)

The purpose of this exercise is to give some practice and understanding in looking at the variety of sources of information usually available in making decisions. Since the exercises that follow get into evaluation of information more specifically, this exercise can concentrate on encouraging discussion about the variety of resources available and why people prefer certain sources to others.

When the class has chosen three preferred sources for Reid, for example, ask members to debate or to discuss their preferences. You might move toward a vote of the entire class for the "best three sources," thus opening it up for some students to try to influence or convince others. It is important here not to make judgments about whose preferences are best; let them discuss and defend their views.

Be sure to encourage discussion of additional sources. This is an important skill to develop in decision-makers.

The following questions might be helpful in leading discussions about information sources.

1. What information does the decision-maker already have that he can use?

2. How reliable, valid, current, accurate is this information?

3. What information is most important to him or her in reaching a decision?

4. How do you check reliability of information?

5. Are there sources specifically related to this decision? (For example, the current women's agencies around the country designed to help women like Mrs. Ramson with her decision.)

You might ask students to write short cases like Reid's or Mrs. Ramson's. They could be hypothetical cases or taken from their own or others' personal experience. You could also write a few. Success - A Search for Values by Audry Roth (see page 96 of Leader's Guide) is a good source of cases.

The Emotional Impact of Information
(page 26 of student book)

The next four pages point out a fact we probably all know but often "forget" when making decisions: our window for viewing information is colored by our emotions, our desires, our biases, our prejudices, our feelings. Often we want it this way. After all, we "see" the world the way we have learned to see it.

But certainly there are times when we want to collect and analyze information "objectively" to make some very important decisions.

At these times we want to have relevant, objective, unbiased facts. We want to call upon our skill to analyze, evaluate, and predict so that we can choose the alternative most likely to bring about the results we want. At these times we want to avoid viewing something as likely, simply because we want it. Remember the third type of common mistake, misinterpreting the importance of information.

The following quotations illustrate and support this point:

> "It ain't the things you don't know what gets you into trouble; it's the things you know for sure what ain't so." Anonymous saying

> "Our passions, our prejudices, and dominating opinions, by exaggerating the probabilities which are favorable to them and by attenuating the contrary probabilities, are the abundant sources of dangerous illusions." Pierre Simon de Laplace, A Philosophical Essay on Probabilities.

In addition to the famous two lines and arrows on page 26 of the student book, there are many visual examples (basic psychology textbooks usually show some) illustrating how people's "view" can be distorted by irrelevant data. The point can also be made that people "see" the same picture, drawing, or ink blot differently.

The quotation by Demiashkevitch on page 22 of the student book would be good for discussion now. Ask why this is a motto for a police school. See if you can collect other quotations or have students write their own. "Don't confuse me with facts, my mind is already made up."

Viewing Information
(page 27 of student book)

When we think of distorted information we often think of advertisers or used-car salesmen. Most of us know that TV commercials are intended to sell the product they advertise, and data show that they do influence our decisions.

Companies spend millions of dollars advertising. They are providing us with information to use in making certain decisions. We usually haven't asked for the information, we usually aren't "collecting" it when it comes. In fact, often we don't like getting it. But it still influences our decisions! If it didn't, companies would not continue to advertise.

Advertising touches everyone and therefore can be used effectively to illustrate some of the points to be made regarding the evaluation of information.

1. Why do you suppose that advertising really works? Why do people tend to buy the things that are advertised?

2. What is the usual pitch that advertisers make? What does this tell you about your values?

3. Which does advertising promote most effectively, the things you have not experienced in the past, or the things you are familiar with? Why?

4. Is the influence of advertising as strong on little decisions as on important ones?

After a brief discussion on these points ask students to list examples on page 27 of distorted information involving little decisions, such as buying a chocolate candy bar or getting a haircut, and big decisions such as voting for a president or choosing a college.

What Is a House Worth? and *A Fact and Some Views*

(pages 28 and 29 of student book)

These exercises are intended to dramatize the notion that "the eye sees in things what it looks for." They are intended to make students aware of potential human bias, not to suggest that homeowners or tax assessors or smokers, etc. are bad or wrong. It is easy to look at how other people sometimes interpret information to meet personal needs or desires. It is harder to look at one's own views.

Other examples might be supplemented:

1. A baseball umpire's decision as viewed by the runner called out, the baseman, the two coaches, the other umpire, the umpire's wife, etc.

2. The fact of air pollution as viewed by car manufacturers, car salesmen, a politician seeking election, the public, etc.

3. The cause of student unrest as viewed by satisfied students, unsatisfied students, parents, school administrators, taxpayers, counselors, etc.

4. The question of economic opportunity as viewed by the poor, the rich, blacks, whites, educators, politicians, etc.

The Evaluation of Experience

(page 29 of student book)

If human beings are likely to "distort" information, how can a decision-maker evaluate data or advice from others? Some of the information on which we base our decisions comes from sources with particular motivations (advertisers, politicians, parents, friends, etc.) and some from our own experience. Ask students to think of sources of information without bias (encyclopedia, college catalog, newspapers, textbooks, etc.).

This exercise attempts to illustrate the problems of using experience (one's own and others') as a basis of information in deciding. Several general points can be made:

1. Personal experience is a very powerful influence even though it may not be "scientific" in the sense that it is good research or valid.

2. Experience of others is more often accepted when it supports our own preferences, and rejected when it contradicts our preference.

3. Much of our interpretation of experience is "distorted" to match our learned prejudices.

4. Relying heavily on personal experience inhibits a person's capacity to be innovative.

Each example can be discussed to bring out a number of points. During the discussions bring out the point that it is not always possible to be completely "scientific" about information collecting and using. It may not even be desirable. Some decisions are not important enough; some decisions may be such that you want your biases (or others') to be influential. Ask students to think of examples of these types of decisions.

An Important Point for Leaders: Good outcomes are determined in part by the decision-maker's preferences, his values. One of the important tools or skills to be used in reaching "good outcomes" involves the interpretation of information. The good decision-maker certainly must use his feelings, emotions, values, intuition, etc. to determine his preferences. But he will want to avoid having his preferences interfere with his interpretation of information.

The Importance of Information
(page 30 of student book)

This exercise is another example of how information is affected by our preferences. Three points should be developed:

1. Our values, objectives, preferences, and knowledge contribute to determining what information we want and how "valuable" it is to us.

2. But information also helps to determine our preferences!

3. Sometimes our procedures for selecting, rejecting, and evaluating information prevent us from learning new values and preferences.

Again, you may want to develop other examples relevant to your students. Perhaps they could be asked to do this. After a student has completed the exercise, an analysis of his rankings may teach him something about himself. The following are possible discussion questions:

1. What does your ranking tell you?

2. Was your ranking different from others'? Why?

3. What makes some information more important to some people than to others?

4. What about past experiences, present circumstances, personal values, wealth, race, status, desires, etc.?

5. Would someone else do your ranking differently?

6. Do we always get the most important information?

7. How do we decide what information to collect?

8. Do you have a strategy for collecting information?

9. What would be a good strategy (or system) for collecting information?

10. How about choosing a wife? a home? a car? a book? a course? a friend? a movie?

Risk-Taking
(page 32 of student book)

The word risk implies danger, peril, jeopardy, hazard, "the voluntary taking of a dangerous chance" (Webster's New World Dictionary). When we use this word we usually suggest the potential of a bad outcome, even something dangerous.

Used as a technical term in decision-making theory, risk means the possibility of several outcomes with known probability. This distinguishes risk from uncertainty, which means the possibility of several outcomes with unknown probability (see page 8 of Leader's Guide).

It is probably not necessary to distinguish for your students between the term risk as used in common language and its technical use. The point is that almost all personal decisions are made under conditions of uncertainty. That is, the decision-maker usually knows that several different outcomes are possible for each choice, but he doesn't know the "risk" involved (the probabilities of each possible outcome). If he could learn to estimate the probabilities he could better "predict" (make known beforehand) the possible outcomes, and he would be a better decision-maker.

The following quotation may be meaningful to some students.

"Let us pause to examine this quest for certainty. By 'certainty' I mean the opposite of contingency. Having survived a disastrous fire in our neighborhood and being concerned about my home, I decide to investigate the likelihood I would not be so fortunate again. I find my odds are 1,000 to 1 against the likelihood that my house will burn, but I am not content and so have the brush cleared back some distance. Now the odds are 1,500

to 1, I find. Still concerned, I have an automatic sprinkling system installed. Now I'm told my odds are 3,500 to 1. However I try, though, I must recognize always that I cannot achieve certainty that the house will not burn. I may do much, but I can't be sure that a nuclear fire-storm will not make my efforts vain. I may build my house underground but still I can't be sure but that the earth might be drawn closer to the sun and the whole world thus be ignited.

"Now these are ridiculous extremes, of course, but the point remains: there is no true certainty to be had. So it is with any issue. Nevertheless, we seek that certainty constantly. We buy insurance, seat belts, medicines, door locks, education, and much else to try to protect ourselves against tragedy, to secure good outcomes. So long as we recognize we are dealing in probabilities, such choices can be useful. But every therapist has seen the pathology of seeking for certainty instead of better probabilities." - James F. T. Bugental, The Search for Authenticity. New York: Holt, Rinehart and Winston, 1965, pp. 74-75.

The risk-taking exercise is intended to show several things:

1. People differ in risk-taking.

2. Individuals are usually not consistent in risk-taking.

3. Risk-taking is a result of several factors; the importance of the outcome, present condition of the risk-taker, amount of information available, conservative-experimental personality traits, etc.

4. Fantasy risk-taking with money is very different from "the real thing."

"How Much of a Risk Would You Take?" should be answered by the student in a general way. This is hard to do because most people have never been asked these questions and because sometimes they take risks and sometimes they don't. But try to force a general, overall self-rating -- are you generally a "high risker"? etc.

Some class discussion could come right at this point. For example:

1. Why was it hard to rate yourself?

2. How does someone become a big risker?

3. What kind of people play it safe?

4. How do we learn our risk-taking tendencies?

5. What makes you "play it safe" in one decision and "take a chance" in the next?

These two "bets" in choices A and B have been offered to hundreds of people experimentally. Most people prefer A1 to A2 and B1 to B2. In A, they reason that when given a choice between certainty and a gamble (risk), why gamble? In B, both choices involve risk. In this case the chances of getting $5 million are almost as good as getting $1 million so why not go for 5?

It is inconsistent to play it safe in A, and take a bigger risk in B. But that's what most people do. You might want to take a poll in your class or conduct an experiment in your school. Are students different risk-takers from teachers? Parents? Others?

If people decided consistently or used the principles of highest expected value strategy (see page 73 of Leader's Guide), they would choose A2 and B1. Why don't they? Why didn't you? Did anyone?

Getting the class to argue (that is, having different people defend different choices in A and B) could lead to some interesting discussions and points about decision-making. This is a classic experiment with coverage in the literature. For more detail, including arguments for and against consistency in this same experiment, see Howard Raiffa, Decision Analysis. Reading, Mass.: Addison-Wesley Publishing Co., Inc., 1968, pages 80-86; and D.G. Morrison, "On the Consistency of Preference in Allais Paradox." Behavioral Science, Volume 12, September 1967.

Situations to Consider
(page 33 of student book)

These situations are intended to stimulate discussion of risk-taking in decision-making situations. Other examples could be taken from literature, history, current social or political issues, local events, etc.

1. The crowd booing

The same thing is true of a football crowd when the team kicks on the fourth down with two yards to go, or when a basketball team stalls in the final minute.

When a person wants a certain result very badly but isn't responsible for achieving it, he can have a casual or carefree attitude in risk-taking.

A baseball manager has more data (usually more "scientific" than emotional) than the fans. Some of his decisions may be examples of escape or minimum strategy (see page 9 of Leader's Guide) -- that is, avoiding the worst possible outcome.

Ask students to think of reasons why fans for both sides might boo.

2. Realistic advice

First of all, counselors generally believe in the value of college. Second, counselors tend to be conservative, often because they are afraid of advising someone else to take a chance of failure. "Good" counseling is usually considered that which directs counselees into successful pursuits.

Predicting success in college is not an accurate science, and some students might be making "better" decisions if they use their own risk-taking characteristics.

The main point is that each person has his own risk-taking strategy for each "risky decision." A decision-maker should know himself well, know the conditions of uncertainty, and use his own strategy for choosing.

3. Tom Sawyer

This illustrates the phenomenon that desirability is inversely related to probability. That is, something that's hard to get is wanted more. Rare things are more desirable. Students have probably had the experience of trying to decide whether or not to buy something and then wanting it desperately if they find they can't get it.

Choosing a college or a career involves this phenomenon. Going to a college where "anybody can go" is somehow less valuable than going to a very selective college. Prestige and/or status is often involved in choosing careers, fraternities, clothes, etc.

One very important point for a good decision-maker to remember is that something is not necessarily better for every person simply because it is rare or unlikely.

4. Insurance costs

Insurance tables are very good examples of risk-taking data. You might use them for some very concrete examples. Perhaps you could bring in an actuary: a person whose job is to calculate risks and premiums for insurance companies.

The father pays higher life insurance premiums because it is predicted that he will die (and his insurance will be collected) sooner than his son. The son pays higher car insurance premiums because it is predicted that he is more likely to have an accident (and collect insurance) than his father.

A discussion of how these predictions are made and how they change might be interesting:

a. Is the insurance company taking a risk?

b. Is the client (buyer) taking a risk?

c. What are the values and objectives of company and client?

d. Does an actuary have an important job?

e. How can companies minimize risk?

5. Dropout

Actually the same analyses can be made about the decision to drop out of school, to stay in school, to go to college, not to go to college, etc.

Even though he may not think it through or study it carefully, a decision-maker who drops out of school predicts something about the effect of this action on his future. He decides, for whatever reasons, that this action is better for him than staying in school (or other possible alternatives). He does not know for certain what the outcome will be, and therefore the decision involves risk.

A leader might use this decision, or the college-no-college decision, to illustrate how a decision-maker could choose and use information selectively to support his emotional decision (see "The Emotional Impact of Information").

Predicting Outcomes
(page 34 of student book)

It may be helpful here to review "What Do You Want?" (page 39 of Leader's Guide).

Somehow we don't like to think in terms of predicting or using probabilities in making human, personal decisions -- it's all right for insurance companies or horse racing or even the weather, but not for dropping out of school, choosing a wife, or deciding your life style.

The point is that we do make predictions but often unconsciously, and therefore unsystematically, and therefore unreliably. There is a saying that "the future isn't what it used to be" so you can't predict it. This exercise is not a lesson in predicting the future. It is intended to give some practice in "looking down the branches of a decision tree" to think about possible outcomes before choosing.

There are, of course, hundreds of possible actions for practice that could be included in this exercise. Ten have been listed that have produced some good results with high school students. You might substitute others. The discussion questions are a guide to getting the most out of the exercise.

The section that asks students to write in their own actions for practice is important. It could provide some new and relevant ideas for everyone to use, and it may cause students to think in terms of "looking down the branches" in future choices.

Don't try to make this a test to "discover" hidden thoughts. If it is seen as "revealing," students won't be so free to express themselves.

Futuristics

Futuristics, the study of the future, is an emerging discipline, or interdiscipline. There is a saying that "if you're young, you're a futurist."

Since the publication of Future Shock by Alvin Toffler, there has been widespread interest in futuristics. A futuristics curriculum fits nicely into a study of decision-making. Most of us, including students, tend to be "provincials of the present," according to one futurist, Thomas H. Maber. Education today is primarily past-oriented. Charles F. Kettering said "My interest is in the future, because I'm going to spend the rest of my life there."

There is now an organization of those who have an interest in the future as a field of study. It is called The World Future Society, and it publishes a periodical called The Futurist. Information and subscriptions can be obtained by writing to the society at P.O. Box 19285, Twentieth St. Station, Washington, D.C. 20036.

Courses on the future are beginning to take their place in the curriculum along with courses on history. There are wide differences of opinion about the value of futuristics. Perhaps some combination of history and futuristics would be useful to wise decision-makers. The Queen in Alice in Wonderland said, "It's a poor sort of memory that only works backwards!"

There are two good guides to how science fiction can lead to excellent class discussions about important decision-making concepts and issues: Dennis Livingston, "Science Fiction Models of Future World Order Systems." International Organization, Spring 1971, pages 254-270; and Thomas D. Clareson, ed., S.F. The Other Side of Realism. Bowling Green, Ohio: Bowling Green University Popular Press, 1971.

APPLYING SKILLS

Introduction

This unit consists of instruction regarding the use of strategy in decision-making, and of exercises that provide practice in applying all the skills of the decision-making process, including strategy. The application exercises deal with relevant decisions students may have to make or are making.

The exercises are intended to teach the decision-maker:

1. What a strategy is and how it is used.

2. That there are several strategies available to use in decision-making and what these are.

3. That everyone uses a strategy each time he decides, even though he may not do so consciously.

4. That learning how to apply a strategy and how to choose the appropriate one will provide the student with more power and control over the outcomes of the decisions he makes.

The concept of using strategy in decision-making will be new to most students. They may find it difficult at first but enjoy the exercises as they get more practice and understanding of this concept.

After a decision-maker studies his values and knows what he wants, and analyzes his information and uses what he knows, he still has the problem of choosing one course of action. How does he do it?

How does a person decide how to decide? Well, of course, he considers the alternatives, outcomes, etc. How does he decide what to decide? Well, of course, he chooses the best alternative. What is the best alternative? Well, of course, the best alternative is the one that leads to what he wants.

In order to choose an alternative (that is, to make a decision) all a person has to do is be sure of what he wants and know what action leads to that outcome. Is it really that simple?

This Decisions and Outcomes program, so far, has been aimed toward helping students develop the skills they need in order to be able to choose the best alternative. But, unfortunately, as important as these skills are, they are not enough. The trouble is, almost no alternatives will invariably lead to a known outcome (see page 55 of Leader's Guide).

So a decision-maker will probably want to choose the action most likely to lead to the best outcome. But if he does, would he always be using the best strategy?

The word strategy as defined here means the decision-maker's plan for deciding, his rule or principle. Strategy is needed in decision-making

because there are risks in every choice. A person uses different strategies in different decisions because his values differ with respect to the risks he will take and the ranking he places on the outcomes. Since almost all choices involve uncertainty, most strategies are concerned with risks, and the four most common risk strategies are these:

1. Ignore risk; choose the action that could lead to the most desirable outcome, regardless of risk. (Wish Strategy)

2. Avoid risking the worst; choose the action that will most likely eliminate the worst possible outcome. (Escape Strategy)

3. Take the best odds; choose the action that is most likely to bring success (has highest probability). (Safe Strategy)

4. Get the best combination of low risk and desirable outcome; choose the action that has both high probability and high desirability. (Combination Strategy)

Other types of strategies might be described as: intuitive, impulsive, based on hunch, based on letting others decide for you, fatalistic, delaying, etc. We all use some of these at some time. But in crucial choices a person wants to feel that the procedure he uses in deciding will give him the best chance of getting the outcome he most desires. The more knowledge he has about strategy and the more skill he has in using strategies, the more likely it is that he will have this chance.

Note the George Bernard Shaw quotation from Man and Superman at the beginning of this unit: "...to be able to choose the line of greatest advantage instead of yielding to the path of least resistance." In crucial choices a person wants to use the procedure that is to his greatest advantage.

Jerome Bruner (in The Process of Education) suggests that people have been traditionally categorized as either "right-handed" (scientific, logical) or "left-handed" (nonscientific, intuitive) thinkers. Furthermore, he says, the formalism of school learning has somehow devalued intuition.

Obviously, most of us make our decisions intuitively. This unit is not an attempt to devalue this type of decision-making. It is intended to give training and understanding in the use of strategies so that a decision-maker will be able to choose a strategy from several, apply it to his decision, and be more skillful in the application -- to become, perhaps, "ambidextrous."

One possible beginning for this unit is to find out from students how or why they now make their everyday decisions. First you might quickly collect a list of decisions made today or this week from the class. Put these on the board. (You may want to save this collection of examples for future use.)

Ask students to think about how or why they made each of these decisions. Encourage those students who are willing to explain their reasons to the class. Every description can be reinforced because there are really no "wrong" descriptions -- all you want is examples.

"I decided to go to school today because I was afraid my dad might find out if I didn't."

"I decided to apply to three colleges just in case I didn't get accepted at one or two."

"I decided to accept the date with Bob because I thought it might be fun."

"I decided to go to the rock concert because I didn't know what else to do."

This discussion about reasons for deciding is intended only to get students thinking about how and why they decide. It is not intended to teach a correct or best strategy for deciding.

Following are some important points to remember during this discussion.

1. People's reasons for deciding almost always have something to do with getting what they want (that is, with the desirability of outcomes).

2. Uncertainty is often a factor -- "it seems the best chance," "it looks most likely," etc. -- and is usually there, even if not expressed.

3. Most people are usually not clear on why they decided as they did.

4. Most of us have never thought about alternative strategies.

5. Intuition or hunch might be all right for some decisions but not for crucial ones.

6. Remember the good decision/bad outcome discussions in "The Starting Point."

7. Using the four "scientific" strategies (see page 8 of Leader's Guide), you can show how they require certain data and how some strategies can't be applied in the absence of such data.

Mark's Critical Decision
(page 38 of student book)

This case can be used before or after the everyday examples from the class or instead of the examples or much later in the unit or not at all. (For possible cases for discussion here or elsewhere, see also Audry Roth's Success -- A Search for Values, described on page 96 of Leader's Guide.)

This case is intended to stimulate a discussion of how or why people make decisions (strategy). Sometimes it's easier to discuss other people's decision-making. You might want to consider discussing a person's general "style of deciding." For example, use "Pete's Day" (page 15 of student book) and ask what kind of decision-maker Pete is. Or use some characters from literature or history or current political and social leaders.

But remember, even though a person may be generally impulsive or cautious, or extremely rational in deciding, he may use different strategies for different decisions or on different occasions. At least, a "good" decision-maker does. (Good decision-making involves the skillful application of strategy.)

Intuition in Decision-Making
(page 39 of student book)

Many young people today are tuned in to the Eastern philosophical point of view. Many are well read and well informed. If you have some of these students in your class, it would be wise to use them. Much can also be done here regarding the current philosophical controversy in this country about free will and determinism (the ideas of B.F. Skinner and Rollo May, for example).

It is important not to alienate students (from the notion of learning decision-making skills) with philosophic points of view.

The quotation from The Way of Zen will provide a chance to discuss the merits and problems associated with "rational" decision-making. The reliability and relevancy of information, the predictability of the future, the problem of "enough" information, the cost in time of collecting information, are all part of this discussion.

This page is intended to illustrate how almost all decisions have some element of reasoning, intellect, or thinking involved. What we often think of as routine decisions, or hunch, or random choice are really decisions we have made often before (and thought through then) or involve information we process so rapidly in our minds we don't realize it, or information that is the result of previous conditioning we don't remember.

Again, it would be useful to get examples from the experiences of the class, from your school or community, or from literature.

One important final point: don't devalue intuitive thinking! You only want to look at it carefully, consider alternative ways of deciding, and propose the idea that for some decisions a decision-maker may want all the tools available to increase the likelihood of a favorable outcome.

Other Decision-Making Strategies

This might be a good time to create a list of strategies based on suggestions from the class. The four listed on page 38 of the student book should be included if they do not come out in the previous discussions with students. Ways of dodging decisions are listed and discussed in the new book by Walter Kaufman (see "Leader's Resource Guide").

In strategy 1 the decision-maker finds out the most desirable outcome and doesn't pay any attention to probability. For example, in the risk-taking exercise on page 32 of the student book, this decision-maker would choose A2 because he has a 10 percent chance of winning $5 million. Using strategy 3 one simply chooses the alternative with the best probability, without ranking the desirability of outcomes (for example, A1 because of the 100 percent chance of winning something). Strategy 4 can be referred to as yielding the "highest expected value" because it involves choosing the alternative that will give the best possible result by combining probability and desirability.

Now this all sounds very technical and complicated, especially since most people usually don't have very good probability data about their personal decisions. But most of us almost always make subjective estimates (often without knowing it) about what we think or expect will happen.

The next exercise described in this Leader's Guide, the XYZ Choice, is a good way to get students to look at: (1) their ways of choosing (strategy), (2) their preferences for probabilities, and (3) the way desirability of outcomes is used in making choices.

The XYZ Choice

This exercise uses the four ingredients of good decision-making that involve information: alternatives, outcomes, probability, and desirability. The purpose of the exercise is to introduce or illustrate the concept of strategy. Strategy for a decision-maker is his criterion or principle for choosing and it answers the question "Why did you choose that?" Using abstract or "meaningless" alternatives like X, Y, and Z forces a decision-maker to have reasons for choosing. When he says "I chose X because it was first," etc., he is describing a strategy.

The series of six decisions in this exercise is intended to show that every decision involves a strategy (reason), but usually it is not made explicit by the decision-maker. The sequence of decisions also shows that strategy involves an attempt to pick the alternative that leads to the best outcome ("I chose X because it was first" implies that you think "first will be best"). The use of ambiguous outcomes (Able, Baker, etc., or Yen, Mark, etc.) also forces the decision-maker to say how desirable he finds each possible outcome ("I like Able best because...").

The two things we want to know most about outcomes when making a choice, then, are "how likely are they to occur?" and "how desirable are they to me?"

Begin this exercise by listing the four information ingredients across the board -- Alternatives, Outcomes, Probability, Desirability. Then, under Alternatives, list X, Y, and Z. At this point ask students to choose one alternative, without any further information.

1. Find out how many chose each alternative (perhaps keeping a tally on the board).

2. Ask some to tell why they chose.

3. See the first 7 discussion points listed below.

From this point on, follow one of the sequences pictured on pages 77 and 78. The sequence listing money under Outcomes is somewhat less abstract than the one listing Able, Baker, etc. Whichever you use, list one column at a time, cover the appropriate discussion points in the list of 20 points below, and give students at each step an opportunity to change their choice. Note that they may choose only X, Y, or Z at each step, not one of the branches (3,000 pounds, Able, Baker, etc.). Under Desirability, list and discuss each of the three categories of desirability one at a time. You can make up worksheets such as the one on page 79, have students fill them out during the discussion, and collect them for tabulating choices or for use in future discussions or exercises.

What you want students to learn in this exercise is the concept that each of the four information ingredients is necessary in making a good decision.

1. If you know just alternatives, you have no relevant basis for choosing.

2. Knowing possible outcomes helps only as far as you can ascribe desirability to them.

3. Probability information -- that is, the chances that you will get the outcome listed -- is helpful. Right away it brings out "risk-taking" or "play-it-safe" strategies.

4. Desirability is the information most people want most. In this exercise, desirability is discussed in three successively more specific ways.

When you have finished, it would be instructive to try to get students to describe the strategy they used in making the final choice -- 1, 2, 3, or 4 as described on page 70. Those who chose Y, for example, may say they used the principle of "playing it safe" or of "avoiding any loss," or some version of type 2 or 3. Those who chose X might give you some version of 1 or 4. Those who chose Z might describe their willingness to take risks "up to 50

percent," etc. or might eliminate Y (because it does not have highly desirable outcomes compared to X and Z) and apply strategy 3 to the remaining two alternatives.

The exercise and the discussion are intended to start students thinking about the fact that there are several possible strategies to use when choosing, and knowing several may make them better decision-makers.

Here are 20 important points to be made during discussion.

1. No one's answer is wrong!

Decision 1

2. The "reasons" for choosing in decision 1 are probably illogical and irrelevant because there are no data given on which to base a logical reason.

3. In the absence of data, people's minds invent information or "reasons."

4. Sometimes we do the same thing (invent reasons) in real decisions when we don't have complete data.

5. Since the class will usually distribute itself among choices X, Y, or Z, rather than preferring any one of them, the point is clear that people have different preferences given the same information.

6. People have the same preferences for different reasons (e.g., several people chose X for different reasons, etc.).

7. What everyone is really doing is trying to "guess" what will be the most desirable outcome (knowledge of desirability of outcomes is one of the most important pieces of information to have).

Decision 2

8. When you fill in the Outcomes column, you don't know much unless you also know desirability.

9. Again, we try to "guess" desirability. In the case of Able, Baker, Charlie, etc., we make associations and ascribe difficulty. In the case of pounds, marks, yen, etc., we use our incomplete knowledge for ranking. Remember that we are always choosing only X, Y, or Z, and not making a choice between branches.

10. Choice Y in the pounds-yen variation offers a no-risk choice that is appealing to some people, but interestingly enough not to all people.

Decision 3

11. When data on probability of success are added, many will find it easier to decide. Try to get a description of strategy here.

12. Often people believe that something with low probability of success has high desirability.

13. In the pounds-yen version, X has a 40 percent chance of success, Y has a 100 percent chance of success, Z has a 90 percent chance of success. Still the class will probably distribute its choices among all three. Why?

14. Ask the question: "Why wouldn't everyone choose Y?"

15. People differ in their preferences for probability odds -- that is, to some a 40 percent chance is too much risk, to others a 90 percent chance is too much risk, etc.

Decision 4

16. When desirability of outcomes is identified only as "good" or "bad" (a two-point scale), desirability information helps only a little in choosing.

Decision 5

17. The ranking of desirability is much more helpful. Note that some decisions that have "good" desirability may still be ranked third or fourth.

18. Most people have little practice in ranking desirability. This is an important decision-making skill.

Decision 6

19. For most personal decisions, most people never get beyond ranking into scaling. Scaling answers the question: "How much better is number 1 rank than number 2 rank?" etc.

20. With this information most people can now choose X, Y, or Z with some confidence.

This exercise should be full of discussion after each decision. Encourage people to express their thoughts and feelings both positive and negative as they go along.

XYZ CHOICE

ALTERNATIVES (Decision 1)	OUTCOMES (Decision 2)	PROBABILITY (Decision 3)	DESIRABILITY		
			Good or Bad (Decision 4)	Rank (Decision 5)	Scale (Decision 6)
X	WIN 3,000 Pounds	40	Good	1	$10,000
	LOSE 3,000 Yen	60	Bad	5	-$10
Y	WIN 3,000 Francs	50	Good	3	$600
	WIN 3,000 Lira	50	Good	4	$5
Z	WIN 3,000 Marks	90	Good	2	$1,000
	LOSE 3,000 Yen	10	Bad	5	-$10

Note: At each decision point, the only possible choices are X, Y, or Z -- not one of the branches.

XYZ CHOICE -- ALTERNATE EXERCISE

ALTERNATIVES (Decision 1)	OUTCOMES (Decision 2)	PROBABILITY (Decision 3)	DESIRABILITY		
			Good or Bad (Decision 4)	Rank (Decision 5)	Scale (Decision 6)
X	ABLE	40	Good	1	$10,000
	BAKER	60	Bad	5	-$10
Y	CHARLIE	50	Good	3	$600
	DOG	50	Good	4	$5
Z	EASY	90	Good	2	$1,000
	BAKER	10	Bad	5	-$10

Note: At each decision point, the only possible choices are X, Y, or Z -- not one of the branches.

WORKSHEET FOR XYZ CHOICE

Decision 1

Choice (X, Y, or Z)	Reason
_____	_____
	_____

Decision 2

Choice (X, Y, or Z)	Reason
_____	_____
	_____

Decision 3

Choice (X, Y, or Z)	Reason
_____	_____
	_____

Decision 4

Choice (X, Y, or Z)	Reason
_____	_____
	_____

Decision 5

Choice (X, Y, or Z)	Reason
_____	_____
	_____

Decision 6

Choice (X, Y, or Z)	Reason
_____	_____
	_____

At the end, you might want to try something like this with your students:

"Assume now that I am your decision agent (see "The Starting Point") and that I am going to make your decisions for you in some variations of XYZ Choice. The value of the outcomes and the probability figures will be changed each time. I will not be able to talk to you again. Tell me how I should decide for you each time -- that is, give me a strategy I can apply whatever the value and probabilities may be."

Telling someone else how to decide for you is the best way to get at the definition of strategy. Consider a strategy as a "way to play the game." Almost everyone has played tic-tac-toe. Most people use a strategy for winning. Ask the class to describe their strategies for winning in tic-tac-toe. It will help if they imagine they are telling someone else (an agent) who must play the next game for them.

A strategy for tic-tac-toe is more complicated because it must take into account an opponent who is trying to make you lose. However, it is a game of "perfect information" (where everything that has happened or can happen is known). In making personal decisions, you never have perfect information.

Three Critical Decisions
(page 40 of student book)

These three cases (and others you can find or make up) are intended to allow students to apply the various skills in the decision-making process to "real" cases but without the problems of crucial, personal decisions of their own. Many other cases can be found in Audry Roth's Success -- A Search for Values (see page 96 of Leader's Guide). Your own newspapers, the literature in English and history courses, and the current events in your city or school provide other examples. Fred's Dilemma (page 84 of Leader's Guide) may also be used in this way.

There are several possibilities for a case-study approach. The approach used will depend, of course, on your own style, the level of the decision-making skills of your students, and their enthusiasm for the case and for discussion.

You might, of course, convert each case into role-playing. If you decide to do this, you should review the teaching suggestions mentioned in the introduction to the Leader's Guide. Role-playing provides a live situation for participants that is helpful in teaching the way people apply decision-making skills. Role-playing should be spontaneous and unrehearsed. It requires good listening skills and a "sense" of what other people are doing and saying and why they are doing and saying it. As is true in other activities suggested in the Leader's Guide, role-players are not evaluated on their acting ability, or on how well they handle a situation. Rather, the emphasis should be on practicing decision-making skills without having to face the consequences of failing or making an actual mistake.

Summer Job Choice
(page 42 of student book)

This exercise can be completed in one class period. It has several variations, which are discussed later. Although the exercise focuses on the information aspect of decision-making, it can be an excellent opportunity to illustrate several points about values and strategy. The purpose of the exercise is to force students into an ambiguous decision-making situation where there is some pressure, where some risk is involved, and where a limited amount of information is available. The decision-maker faces at least three questions: (1) How important is the outcome to me? (2) How much risk am I taking? (3) What information is most important?

Students are asked to make the same decision three times in this exercise. As described at the top of page 42 of the student book, they must first choose between the two jobs of catskinner and spotter, knowing only the names of the jobs (or they can choose to wait for two weeks). Next they are allowed three pieces of information, which they choose from the list at the bottom of page 42. To supply this information, you can make up cards or slips of paper from the Summary Data Card list (on page 83 of Leader's Guide) and hand them out as requested, three choices per student. Each card should show only one piece of information. For example: "A. Salary of catskinner -- $8.50." Finally, give them all available information in the Summary Data Card, perhaps by duplicating this list and distributing it.

After each decision discuss the choices and reasons. It is important to remember that there are no right or wrong choices or reasons! This exercise could be related to XYZ Choice: X = Catskinner, Y = Spotter, and Z = Wait.

Of course students are not expected to know what catskinners or spotters are. If some do, they should not tell the others. The procedures for distributing information for the second and third decisions will depend on the size of the class and facilities available. A table or "information bank" could be established and run by the leader, a student, an aide, etc.

During all three discussion periods the leader should be alert to these points (see also "Summer Job Choice Discussion" below):

1. This simulation is "unreal" in the sense that alternatives are seldom limited to three or seldom all known.

2. The kind and amount of information available is often not under the decision-maker's control.

3. It's often very hard to give a "reason" for choosing.

4. When all alternatives are unknown, the decision-maker has to rely on what seems desirable to him, as in XYZ Choice. For example, if "catskinner" suggests blood to someone, he may avoid it, etc.

5. Choosing from an "information menu" requires decisions on which information is most important -- decisions that depend on one's values.

6. People generally are not clear in their own minds what is most important in a job. They can easily deceive themselves.

7. Information is of different value to different people.

8. Review the four mistakes commonly made in gathering information for possible application here.

9. A job title may obscure the important aspects of a job to a decision-maker. (Discuss some job titles that sound prestigious and some that don't and ask students how much they think people are impressed by these.)

10. The strategy a decision-maker uses depends on his current situation -- for example, how desperate he is for a summer job, for money, how scarce jobs are, how close summer is, his financial status, etc.

Variations on "Summer Job Choice"

"Summer Job Choice" has several possible variations.

1. Randomly assign three pieces of information before the second decision instead of allowing requests.

2. Randomly give three additional pieces of information between the second and third decisions.

3. Have the class play the game in small groups of three or five. This introduces the element of group decision-making and requires students to explain their preferences in order to convince others.

4. Ask the entire class to rank the three or five pieces of information most important in the following situations:

   a. For this class in a summer job

   b. For this class in a career

   c. For adults in this community in a career

   d. Careers for males, females, younger or older people, etc.

   e. Careers 10 or 20 years ago; 10 or 20 years in the future.

5. Change the information answers. For example, after choice three, change the salary of catskinner and spotter. Does this change anyone's decision? Change the working conditions or duties, etc.

SUMMARY DATA CARD

A. Salary of catskinner	A. $8.50 per hour
B. Salary of spotter	B. $2.50 per hour
C. Names of two jobs in two weeks	C. Door-to-door salesman and library aide
D. Duties of catskinner	D. Drive a small tractor, dirt mover for road construction
E. Duties of spotter	E. Operate several machines that remove spots at a dry cleaner's
F. Working conditions of catskinner	F. Outdoors, eight-hour day, hard labor
G. Working conditions of spotter	G. Inside, good clean plant, eight-hour day, easy
H. Duties of first job to be available in two weeks	H. Sellings ads in publications to commercial agencies and clients
I. Duties of second job to be available in two weeks	I. Inside, assisting librarian in cataloging, reshelving, answering telephones, etc.
J. Salaries of both jobs in two weeks	J. First job pays $2.50 per hour plus commissions. Second job pays $2.75 per hour
K. Counselor's advice	K. Take the job that relates most to your career interest
L. Parents' advice	L. Choose the job that will provide the most money for your future education
M. Kind of people you will be working with as a catskinner	M. Mostly men, "hard hats," ages 24-40
N. Kind of people you will be working with as a spotter	N. Mostly women, skilled laborers, ages 30-50
O. Restrictions or limitations on two jobs that will be available in two weeks	O. First job: boys or girls, good verbal ability, friendly personality and ability to persuade Second job: boys or girls, good with details, work under supervision, fast with alphabetizing

Summer Job Choice Discussion

1. What is important to you in a part-time job?
2. Are the same things important in your career?
3. Does the information you selected tell you what is important?
4. Do you often have perfect information?
5. Was the risk involved in waiting important to you?
6. What important information was missing?
7. Is a person who waits indecisive?
8. Is a person who doesn't wait impulsive?
9. Is a summer job part of career choice?
10. What new information was crucial in the Summary Data Card?
11. How can you be sure you have enough information?
12. Does your objective determine the information you seek?
13. What other factors or conditions affected your decision?
14. Is it important to you what others think?
15. Is your career choice your most important decision?

Fred's Dilemma
(page 43 of student book)

This case study lends itself to role-playing or class involvement in a variety of ways. One student can play Fred, one student his lawyer, and several students his "advisers." Fred and the lawyer can each have information given to them (see lawyer's and client's information below). The advisers would be expected to ask Fred and his lawyer questions and then make a recommendation. Another variation would be to have the entire class be advisers.

Here is a good chance to focus on the process of decision-making. Some students could be assigned as observers, to forget about the decision, or the outcomes, or the right thing to do, and make notes on how the decision is being made. Ask whether the advisers followed good decision-making procedures in making their recommendations.

A. Information for Lawyer

1. If the client is acquitted by the jury, he has no criminal record and the case is closed.

2. If the client is found guilty by the jury, he faces a possible prison sentence or three to nine months in the county jail, depending on the judge's sentence.

3. If the client pleads guilty he avoids any chances of being found guilty of a felony and doing prison or jail time.

4. If the client pleads guilty, he gives up any chance of beating the charge. He automatically incurs a criminal record.

5. A criminal record for a misdemeanor can be removed following one year without further arrests.

6. To remove a criminal record for a felony may require a pardon after three years' probation.

7. The sentencing after a jury verdict varies greatly according to the attitude of the judge.

8. To be acquitted by the jury, witnesses would be necessary.

9. Such witnesses' testimony could be self-incriminating.

10. The judge who would be trying this case is known to be very tough on marijuana users.

B. Information for Client

11. The coat you were wearing belongs to your best friend, who is on probation.

12. This is your first charge of marijuana possession, although you have used and carried marijuana before.

13. Others attending the party will not make very good witnesses because they don't want to get involved.

14. You do not have a criminal record and want very much to avoid one.

15. You also do not want to incriminate your friend or call undue attention to that party.

After High School
(page 44 of student book)

This exercise is related to "Predicting Outcomes" in the "Before Deciding" unit. It can be used both to review the decision-making process and to have students take stock of what they know and need to know about future planning. It may also have the effect of motivating some students or at least helping them to realize the advantages of planning. It will be easy for some to pretend to be on their own now or in one year. For others, it will be hard to imagine.

For the first part of the exercise, when students are imagining themselves on their own, it may be a good plan to let them write in the possibilities without further direction or assistance. The possibilities, of course, are related to their knowledge of themselves (grades, abilities, interests, activities, etc.) and to their knowledge of their environment (the real world). It is extremely important for a leader not to try to get students to see how bad the situation would be. They are learning how to look at a situation and what information will help them deal with it realistically.

In the second part of the exercise, they must prepare for an event that might happen. After students have written their answers and discussed their ideas, it would be interesting to go over their decisions in relation to the following parts of previous units. This review could be used to summarize what has been learned about the decision-making process.

The Starting Point

- Decision-Making: What Is It? (page 6 of student book)
- Decision-Making: The Process (page 7)
- What Is a Good or a Poor Decision? (page 9)

The Deciding Self

- What Do You Want? (page 14)
- Establishing Objectives (page 18)

Before Deciding

- Gathering Information (page 24)
- Evaluation of Experience (page 29)
- The Importance of Information (page 30)
- Risk-Taking (page 32)

Applying Skills

Introduction (page 38)

Selecting a College
(page 45 of student book)

This can be a "pretend" exercise or a real one, depending on your student population, their grade level, the time of year, etc.

The exercise can be used with several variations:

1. It could lead directly to use of the College Board's College Locater Service (CLS). This service helps students determine what features of colleges are of greatest importance to them. Students state their preferences on a checklist of college characteristics, and the CLS then furnishes them with information about the colleges that have the characteristics they want. If your school does not have information about the CLS, write for a free counselor's information kit to: College Locater Service, Box 2602, Princeton, New Jersey 08540.

2. It could lead directly to whatever group guidance or college counseling services are provided in your school.

3. It could be the beginning of careful consideration of the factors most important to a person in his choice of college.

4. It could be an exercise in practicing clarification of values, seeking and using information, and applying strategy.

Self-Evaluation
(page 48 of student book)

This exercise can be used in a number of ways. You may want to have students complete it and compare the results to those on page 11 of the student book. Or additional items may be added to the self-evaluation to form a more detailed end-of-course evaluation. For this purpose, the suggestions on evaluation on page 15 of the Leader's Guide should be reviewed.

Finally, students might be asked about the areas they feel particularly weak or strong in and what they might like to do to pursue and practice decision-making skills further.

It is recommended that the leader complete this self-evaluation and share his observations with the class, if he thinks it appropriate to do so.

Innovations

Leader's Name: _____

School : _____

Address : _____
Street City State Zip

Date : _____

Unit of student book: _____

Type of student population: _____

Type of activity (for instance, discussion, written exercise, or game): _____

Resources used, if any (for instance, book, film, recording, newspaper, or magazine): _____

Describe briefly what was done: _____

Directions to students: _____

Degree of success: _____

Recommendations or comments: _____

LEADER'S RESOURCE GUIDE

Following is an annotated list of books and articles and other resources which may be useful as supplementary materials or as sources of ideas for leaders. This list is not intended to be exhaustive. It is planned that supplements to the Leader's Guide will be published occasionally as new resources are discovered or developed. Leaders are encouraged to send in new ideas and any lists of resources that have been useful. Leaders of decision-making groups may want to use the guide as the beginning of a collection of resources.

Abt, Clark C., Serious Games. New York: Viking Press, 1970, 176 pp.

Abt's work irvolves the application of scientific problem-solving developed in operations analysis and military strategy decision-making to broad areas of social concern.

One of the most important attributes of games is the risk-free, cost-free opportunity to explore alternatives, both for the individual and for society. Abt defines a serious game as "an activity among two or more independent decision-makers seeking to achieve their objectives in some limiting context."

He describes the potential benefits in a wide range of situations. For the disadvantaged, games can be used to identify and motivate nonverbal skills, particularly in cognitive problem solving, social negotiating, and organizing abilities. In discussing their applications to vocational choice, Abt stresses the value of exploring alternatives in preference to trial-and-error job decisions. He lists five characteristics that should be covered in order to provide the player with a total awareness of the occupation. These are: (1) nature (type of activity, location, types of problems solved, environmental characteristics, etc.), (2) rewards, (3) entry requirements, (4) opportunities for advancement, (5) opportunities for self-realization. This is an excellent book for anyone in the educational system.

Altshuler, Thelma, Choices: Situations to Stimulate Thought and Expression. Englewood Cliffs, N.J.: Prentice-Hall, 1970, 306 pp.

This book is described in its preface as "a textbook which does not convey information but rather encourages understanding of self in terms of response to provocative situations." It is an unusual and very useful format for involving students in simulated choices relevant to their own values, and getting them to express and rationalize their positions in written themes. The exercises cover a wide range of situations, such as freedom and restraint; money; love, hate, and other strong feelings; truth and lies. The concluding section contains selections from literature that convey a wide range of viewpoints and values in these same areas of concern. It is written for junior college students.

Barr, Robert D., ed., Values and Youth: Teaching Social Studies in an Age of Crisis - No. 2. Washington, D.C.: National Council for the Social Studies, 1971, 112 pp. $2.75

The cornerstone of this perceptive paperback, published by the National Council for the Social Studies, is a rationale for the "new" social studies -- the need to rethink the teaching of values so that students can identify and clarify their own values and make personal decisions relevant to their own situations. The opening articles by editor Barr trace the weaknesses of traditional approaches that seek either to inculcate values or maintain a neutrality that carries the impact of the "hidden" curriculum - both of which are charged with failing to answer the needs of America's culturally

pluralistic society. The second part, Voices of Youth, documents the thesis in the words of students themselves. Part three, Values in the Classroom, contains articles for teachers by some of the leading proponents of the new social studies, including Fred Newman, Donald Oliver, Sidney Simon, and others. The appendix gives useful source materials of further aid to teachers who are interested in introducing the new approach in their own classrooms.

Begle, Elsie P.; Dunn, James A.; Kaplan, Robert M.; Kroll, John; Melnotte, Judith M.; and Steel, Lauri, Career Education: An Annotated Bibliography for Teachers and Curriculum Developers. Palo Alto, Calif.: American Institutes for Research, 1973, 321 pp.

This annotated bibliography focuses on career education for elementary school students. The opening section discusses the background of the career education movement. This section also covers the elementary career education project sponsored by the United States Office of Education and carried out by the American Institutes for Research. The second section is devoted to a literature review of the career guidance field, ranging from theoretical background to particular implications for elementary school programs, minorities, and women. Part three contains reviews of 100 children's books which can be used in career education programs in early grades. A final section contains listings of other resources for such programs.

Crites, John, Career Maturity Inventory. Monterey, Calif.: CTB/McGraw-Hill, 1973

This inventory was developed after many years of research by a recognized expert in the theory of development. It is a developmental inventory of attitudes and competencies related to career education and choice.

ERIC Counseling and Personnel Information Services Center of the University of Michigan, "Career Guidance: Supersonic Predictions and Earthly Realities of the Seventies." Impact, 1973, Vol. 2, No. 2

This issue of Impact, the innovative journal put out by the ERIC Counseling and Personnel Information Services Center of the University of Michican, provides excellent sprightly coverage of the current scene in career guidance. Its lead story deals with the impact of shifting priorities in education and manpower requirements on the career guidance field. Other significant articles include the sixth report of the National Advisory Council on Vocational Education criticizing inadequacies of guidance, and some rebuttal; the 1972 Purdue opinion poll of high school students; an article from The Futurist, on "Motherhood: An Occupation Facing Decline;" and a round up of programs and publications.

Up-to-date topics and attractive graphics make this magazine highly readable.

Gorman, Alfred H., Teachers and Learners: The Interactive Process of Education. Boston: Allyn and Bacon, 1969, 189 pp.

This is one of the most useful and down-to-earth books for classroom teachers in interpreting theories of interactive behavior for use in classroom communication. The author suggests that teachers of teachers-in-training use the book in four stages -- reading, discussion, practice, and adaptation of the materials for their own special needs. The materials are organized into three major categories: (1) the past, present, and future of teaching and learning behavior; (2) a conceptual framework for teaching; and (3) methods of handling classroom communication on both intellectual and emotional levels.

Hansen, Lorraine S., Career Guidance Practices in School and Community. Washington, D.C.: National Vocational Guidance Association, 1970, 188 pp.

This monograph is an invaluable guide both to theories underlying career guidance and to the scope of programs in nationwide operation. In order to make available to a wide audience the wealth of material collected by the ERIC Counseling and Personnel Services Information Center, this project was carried out by leaders in the guidance field and published by the NVGA.

It is a basic starting point for educators and community leaders anxious to avoid reinventing the wheel in setting up new career guidance programs. Chapter I is devoted to theory, Chapter II to school practices and programs, Chapter III to school and community efforts, Chapter IV to the use of advanced media and technology, Chapter V to vocational education and guidance, and Chapter VI to a discussion of the problems and challenges for the future.

Hawley, Robert C., and Hawley, Isabel L., A Handbook of Personal Growth Activities for Classroom Use. Amherst, Mass.: Education Research Associates, 1972, 120 pp. $5

Decision-making leaders have often requested additional resource material that particularly focuses on ways to facilitate individual growth in the group context in which decision-making is usually taught.

Robert and Isabel Hawley's handbook on personal growth activities should prove to be especially helpful in terms of developing more effective group interaction and in helping groups of students learn to work together, to listen together, and to develop better understanding of one another.

Especially useful in this handbook are fully described personal growth activities that can be easily adapted for use with the decision-making curriculum. In fact, the exercises may well provide additional and unique experiences for students that will facilitate the attainment of overall decision-making program objectives. There is a wide variety of topics in the handbook, including community building, brainstorming as a way of thinking, feedback, developing open communication in the classroom, interpersonal relationships and identifying student concerns.

The exercises and techniques are explained in detail so that the

teacher will have little trouble understanding procedures and content and adapting these to specific group situations. Most of the exercises are appropriate for kindergarten through twelfth grade and can be used with students of all ability levels.

A Handbook of Personal Growth Activities for Classroom Use is exceptional in terms of the number of excellent, concrete, and practical devices and procedures that it offers to its readers.

Ivey, Allen E., and Alschuler, Alfred S., guest eds. "Psychological Education: A Prime Function of the Counselor." The Personnel and Guidance Journal, May 1973, Vol. 5, No. 9, pp. 581-691

The growing importance of the psychological education movement is evidenced by the decision of The Personnel and Guidance Journal to devote an entire issue to presentations of the techniques, programs, and social implications of this new approach. The guest editors describe psychological education as many-faceted, including "special techniques and growth centers, carefully designed courses that inculcate aspects of mental health and personal adjustment, and a new curriculum area in which people learn to understand themselves." It has major implications for counselors, since the role of the counselor is one of leadership and active participation in the educational arena, as contrasted with the isolated role of traditional counseling.

This important issue covers many aspects of psychological education in articles written by leaders in the field. Among the articles are "Values Clarification" by Sidney Simon, "Group Dynamics Techniques" by Michele Moran Zide, "Self-Determined Behavior Change" by Robert Goshko, "Human Development in the Classroom" by Palomares and Rubini, and the guest editors' discussion of "Getting into Psychological Education."

James, Muriel, and Jongeward, Dorothy, Born to Win: Transactional Analysis Gestalt Experiments. Reading, Mass.: Addison-Wesley, 1971, 297 pp.

This book relates the complex psychological schools of thought in transactional analysis and Gestalt therapy to the role of teachers and others working to help students acquire a "born to win" self-confidence. It shows how both methods can be adapted to daily life and classroom situations involving the individual's need to increase his self-awareness, make decisions, and understand the needs and concerns of others. The authors point out that "Transactional analysis gives a person a rational method for analyzing and understanding behavior; Gestalt therapy gives a person a useful method for discovering the fragmented parts of his personality, integrating them, and developing a core of self-confidence."

Each chapter contains experiments and exercises designed to translate the theoretical material into methods that will be relevant to the individual.

J.C. Penney Company, Inc., Consumer Decision-Making Program. New York: J.C. Penney Company, Inc. Educational and Consumer Relations, 1972

This looseleaf notebook is illustrative of the thrust in social and environmental responsibility being assumed by American business enterprises. Focusing on the importance of effective and informed consumer decision-making, it is the latest in a series of Penney's educational materials aimed at developing decision-making skills. This unit has been developed to provide strategies useful in secondary school classes, and groups with limited financial resources.

The program approaches decision-making as a "result-oriented" rather than a "problem-oriented" process. The steps of proving, processing information and clarifying values are identified. Attractive graphic presentations using slides, charts, and so forth vary the teaching approaches possible.

Another educational product made available by Penney's educational program is a resource box, called Decision-Making for Consumers. It contains a complete assortment of materials including filmstrips, paper puppets, recorded playlets, and so forth.

Kaufman, Walter, Without Guilt and Justice: From Decidophobia to Autonomy. New York: Peter H. Wyden, Inc., 1973

Written by a Princeton philosopher, this book describes 10 common copout strategies people use to avoid making fateful decisions. The decidophobic is a person who craves but dreads autonomy.

Meehan, Eugene J., Value Judgment and Social Science: Structures and Processes. Homewood, Ill.: Dorsey Press, 1969, 159 pp. (Out of print)

The purpose of this book is to define the term "value judgment" and to build a rationale for implementing that definition in the study of social science. Meehan explains that his purpose is "to identify the way in which value judgments are made so that the essentials of the process can be examined, not to make value judgments." He postulates that a value judgment "requires a reasoned choice from among the alternative sets of outcomes that can be achieved by an identifiable factor in a specified empirical situation."

Metcalf, Lawrence E., ed., Values Education: Rationale, Strategies, and Procedures. 41st Yearbook. Washington, D.C.: National Council for the Social Studies, 1971, 208 pp. $6.50. Paperback $5

The role of the schools in teaching values is explored in this 41st yearbook of the National Council for Social Studies. Building on the initial premise that the main objection of value analysis is to help the student develop capabilities necessary to make the most rational value judgments he possibly can, the contributors present strategies for achieving that goal. Chapter 2

identifies six basic elements of an evaluative decision-making process: (1) identifying and clarifying the value question; (2) assembling facts; (3) assessing factual assertions; (4) clarifying the relevance of facts; (5) arriving at a tentative value decision; (6) testing the value principle implied in the decision.

The role of the teacher is described as that of consultant and advisor rather than as a "dispenser of information." To elaborate on how teachers can operate in that context, chapter 3 analyzes two procedures.

The problem of resolving value conflicts is also considered. A final chapter contains a programmed text sample.

Mosher, Ralph L., and Sprinthall, Norman A., "Psychological Education: A Means to Promote Personal Development during Adolescence." The Counseling Psychologist, 1971, Vol. 2, No. 4

This important presentation describes a curriculum designed to affect personal development occurring during adolescence. Produced by a group of counseling psychologists and teachers, it underwent field tests for a period of two years. Section I provides a critique of secondary education; Section II discusses one component of the curriculum - a seminar and practicum in counseling; Section III contains a seminar and practicum in teaching; and Section IV describes the humanities component, and discusses improvisational drama; Section V covers a seminar and practicum in child development.

Mosher and Sprinthall's concepts of psychological education are also discussed in "Psychological Education in Secondary Schools: A Program to Promote Individual and Human Development" in The American Psychologist, 1970, Vol. 25, No. 10, pp. 911-924.

National Training Laboratory Learning Resources Corporation, Twenty Exercises for Trainers. Twenty Exercises for the Classroom. Washington, D.C.: National Training Laboratory Learning Resources Corporation, 1972

These two packets of exercises provide complete units for group interaction and experiential learning. The first series was prepared for training adult leaders; the second set was designed for classroom use. Packaged in looseleaf file format, the exercises contain complete instructions for presenting the units. Among the topics contained in the trainer folder are Clear and Unclear Goals; Personal Growth: Intensive Listening; Personal Growth: Dream Collection; Practice in Observation: Empathy, Win-Lose Competition, Openness and Trust.

The exercises for classroom use cover such topics as Brainstorming; Accent on Listening: The Echo Game; Learning about Behavior Styles; Role Playing; Finding a Consensus; Estimating Value Judgments.

Pennant Educational Materials, 1973 Catalog Materials for Valuing. San Diego: Pennant Educational Materials, 1973

This catalog provides extensive coverage of the resources and literature available for use in teaching or group discussions of values. The listings include games for groups (with age suitability specified from elementary grades through adult groups), inventory instruments for collecting data on values, and books that are useful in educational presentations of valuing.

The inventory instruments include the Simpson Perception of Values Inventory (PVI), the Gardner Analysis of Personality Survey (GAP), the Murphy Inventory of Values (MVI), and the Sanford-Seiders Value Inventory of Behavioral Responses (VIBR). Specimen sets can be ordered.

The books that can be ordered include Lasswell-Rucker Value System Oriented Books, as well as grade-level series for use in elementary and secondary classrooms.

Raths, Louis E.; Harmin, Merrill; and Simon, Sidney B., Values and Teaching: Working with Values in the Classroom. Columbus, Ohio: Merrill, 1966, 275 pp.

This book is predicated on the assumption that value theory and related teaching strategies can help students establish their own values through "an intelligent process of choosing, prizing, and behaving." It contains a section on value theory, followed by one on methods of clarifying values. Teachers should find it most useful in providing methodology for implementing value educational situations in the classroom that are designed to give students opportunities to build their own value structures.

Roberts, Thomas A., Maslow's Human Motivation Needs Hierarchy: A Bibliography. DeKalb, Ill.: Northern Illinois University, 1972. ED 069 591

This bibliography contains 200 articles, mostly dated after 1965, dealing with human motivation, psychological needs, and satisfaction.

Roth, Audry, Success - A Search for Values. New York: Holt, Rinehart, and Winston, Inc., 1969

This book focuses on different facets of the concept of success. Readings, sketches, and cartoons are aimed at helping the disadvantaged community college student develop his own definition of success. The selections are chosen to provide role-playing situations that provide the student with many different value systems; they are brief and lively, with messages that present but do not force the idea of identifying alternatives and assigning value priorities to possible choices.

The first section presents traditional success stories, the second stresses group success, and the third examines individual success.

The authors and artists represented include Charles Schulz, Bill Mauldin, Martin Luther King Jr., Mark Twain, and George Bernard Shaw.

Schrank, Jeffrey, Media in Value Education: A Critical Guide. Chicago, Ill: Argus Communications, 1970, 168 pp. $4.95

Predicated on the need for a guide to the "electrically configured world" that is a part of today's educational scene, this book identifies and reviews films and "non-print" media that have major implications for teaching values. It contains reviews of 75 short films found to be valuable for religious education although they are secular productions. The reviews also contain discussion guides useful in relating the films to the students' own lives and attitudes. Another chapter covers tapes, filmstrips, and other materials that are available.

Scriven, Michael, Student Values as Educational Objectives. Boulder, Colo.: Social Science Educational Consortium, 1966, 24 pp.

The debate over "value-free" versus "value-involved" teaching has most frequently been engaged in by psychologists and social science curriculum developers and teachers. This paper brings the focus of a philosopher to bear on the controversy. Scriven affirms the justification for teaching values and for directing students toward particular sets of values on the grounds that "Criticism and approval are a necessary part of the process of external improvement of a science, as well as of the process of external application of science, and value judgments expressing them are important and complex, and hence much debated, but absolutely inescapable -- except by the ostrich route."

Scriven devotes the last part of his paper to a discussion of measuring changes in values. He sees a great need for more sophisticated and comprehensive research on measurement in this field.

Scriven, Michael, Values and Valuing Process. Boulder, Colo.: Social Science Education Consortium, 1971

This paper develops a basic conceptual framework of values and the process of valuing. Four different types of values are discussed in section 1: personal, market, real, and implicit. Section 2 considers rational evaluation as the cornerstone of value establishment and discusses alternative means to ends involving a number of different skills. Section 3 deals with foundations of morality and democracy, and concludes that moral education should teach that there is nothing that cannot be challenged. The paper asserts that schools should concentrate on providing students with cognitive and affective skills they need to challenge old assumptions and develop new values.

Simon, Sidney B.; Howe, Leland W.; and Kirschenbaum, Howard, Values Clarification: A Handbook of Practical Strategies for Teachers and Students. New York: Hart Publishing Co., 1972, 397 pp.

Values clarification is an approach that does not try to inculcate values in students but attempts to help them articulate their own value systems on a conscious level. This handbook provides teachers with 79 specific strategies for helping students to identify their own value priorities and appreciate the connection with decision-making and actions.

Based on concepts of Raths, the authors discuss the subprocesses of prizing and publicly affirming one's beliefs, choosing one's beliefs after weighing consequences and alternatives, and acting on one's beliefs.

The authors advocate the values clarification approach over the traditional ones of moralizing, laissez faire, and modeling.

The 79 strategies are provocative in both content and method and should act as catalysts for lively discussion and examination of what beliefs are important to the student.

Simulation/Gaming/News. Stanford, Calif.: Stanford University, $4 for five issues

S/G/S appears five times a year. It not only discusses specific games (one issue has a freeway-planning simulation complete with rules), but also gives applications for the use of games in specific subject-matter areas. Its inclusion of materials and feedback from teachers and professors makes this valuable to teachers and game designers. Most games are on the secondary level, but some can be adapted to the elementary level. It contains resource lists and notices from educators who want to share games they have developed. The November 1972 issue emphasizes elementary games.

Super, Donald, Work Values Inventory. New York: Houghton Mifflin, 1972

The inventory includes not only some of the more commonly measured intellectual and social values (altruism, aesthetics, intellectual stimulation) but also some that are not commonly included in existing instruments. (For example, attitudes toward a way of life and toward work that permit one to be the type of person he wishes to be.) The relative strength of the following work values is measured: intellectual stimulation, job achievement, way of life, economic returns, altruism, creativity, relationships with associates, job security, prestige, management of others, variety, aesthetics, independence, supervisory relations, physical surroundings.

UCLA Center for Study & Evaluation Instructional Objectives Exchange. Los Angeles: UCLA Center for Study of Evaluation

This is the first of IOE collections devoted to affective objectives containing measures of self-concepts. They are listed according to grade level, and divided into five major sections. Some of the titles in the self-appraisal inventory at the secondary level are: "Choose a Job Inventory," "Parental Approval Index," "What Would You Do?"

Willingham, Warren W.; Ferrin, Richard I.; and Begle, Elsie P, Career Guidance in Secondary Education. New York: College Entrance Examination Board, 1972, 66 pp. $2

This report provides comprehensive coverage of the career guidance field in well-condensed format. The first section is an expository analysis of the status quo in guidance as of early 1972, and a look at future trends and challenges. Detailed charts comprise a second section, capsulating a great deal of information on federal, state, local, and commercial programs and materials, as well as dominant theories and criticisms of career guidance. A final section contains an annotated bibliography of 100 important books and articles on guidance.

The focus of this report is on guidance for secondary school students.

Wrenn, C. Gilbert, and Schwarzrock, Shirley, The "Coping With" Books. Circle Pines, Minn.: American Guidance Service, 1973. 16 pamphlets and teacher guides. $16

The "coping with" series is a "tell it like it is" approach to adolescent personal and social problems. Wrenn, the senior author, is one of the best known leaders in the field of counseling. The 16 pamphlets contain down-to-earth information and discussion of four major topics: "The Facts and Fantasies Series," "The Crutches Series," "The Getting Along with Others Series," and "The You Yourself Series." Problems such as drug use, alcohol, overweight, and getting along in school with peer groups are the focus of a nonmoralizing text. The series contains teacher and counselor guides for each pamphlet to facilitate group use and discussions.

Zingle, H.W.; Safran, C.; and Hohol, A.E., Decision-Making. Toronto: Holt, Rinehart and Winston of Canada, 1968, 224 pp.

This textbook in decision-making for Canadian secondary school students is an example of how traditional formats that are well designed can still compete with new multimedia instructional materials. It leads the student through building awareness of his own aptitudes, interests, achievements, and values to discussion of decision-making as a lifetime strategy.

In contrast with the dry statistical flavor of many labor market prediction charts, this book uses a sprightly and concise "report card" presentation which should have strong student appeal. It divides jobs

into "bright future," "status quo," and "dead end" categories, and rates them with plus or minus notations for expected rates of growth.

The authors also include a chapter on planning for use of increased leisure time expectations to free the worker from time-wasting guilt feelings about non-work hours. They contrast the value of applying decision-making strategies to selecting satisfying hobbies to unplanned drifting into time-consuming activities.

Zuckerman, David W., and Horn, Robert E., The Guide to Simulations/Games for Education and Training, with Twelker, Paul A., and Layden, Kent, A Basic Reference Shelf on Simulation and Gaming. Second edition. Lexington, Mass.: Information Resources, 1973, 499 pp. $17

This encyclopedic guide to more than 600 available games and simulations is an invaluable resource for tracking down new educational materials in this field. It has been developed on the basis of classroom usefulness and simplicity, rather than as a research undertaking, and is therefore particularly useful for teachers, curriculum developers, and guidance personnel. Classified by subject matter, such as business, domestic politics, ecology, economics, education, science, self-development, skill development, social studies, and sociology; the concise listings give playing data, materials, summary descriptions and comments, as well as cost lists and addresses for further information.

The second section contains articles on the purposes and methodology of games and simulations, and the third section gives brief background information on some additional projects. Built-in provisions for acquiring information for a third edition (as well as order forms for this edition) are evidence of the ongoing efforts of the authors to avoid the almost immediate obsolescence that often limits the usefulness of publications in such a rapidly changing educational field.

BIBLIOGRAPHY

Astin, Helen, "Career Development During the High School Years." Journal of Counseling Psychology, 1967, Vol. 14, pp. 94-98

Boocock, Sarane S., "The Life Career Game." Personnel and Guidance Journal, 1967, Vol. 46, pp. 328-334

Bross, I.D.J., Design for Decision. New York: Macmillan, Inc., 1953

Caplan, Stanley W., "The Effect of Group Counseling on Junior High School Boys' Concept of Themselves in School." Journal of Counseling Psychology, 1957, Vol. 4, pp. 124-127

Chernoff, H., and Moses, L.E., Elementary Decision Theory. New York: John Wiley and Sons, Inc., 1959

Clarke, Robert; Gelatt, H.B.; and Levine, Louis, "A Decision-Making Paradigm for Local Guidance Research." Personnel and Guidance Journal, 1965, Vol. 44, pp. 40-51

Cody, John J., and Evans, John R., "Transfer of Decision-Making Skills Learned in a Counseling-Like Setting to Similar and Dissimilar Situations." Journal of Counseling Psychology, 1969, Vol. 16, pp. 427-432

Cody, John J., and Rothney, John W.M., "Oral Problem-Solving Performances of Superior High School Students." Personnel and Guidance Journal, 1963, Vol. 4[illegible], pp. 425-429

Crites, John O., Vocational Psychology. New York: McGraw-Hill, 1969

Cronbach, Lee J., and Glesser, Goldine C., Psychological Tests and Personnel Decisions. Urbana, Ill.: University of Illinois Press, 1965

Dillenbeck, Douglas D., Guidance Services 1968-1973. A Report to the Trustees of the College Entrance Examination Board. New York: College Entrance Examination Board, 1969

Gelatt, H.B., "Decision-Making: A Conceptual Frame of Reference for Counseling." Journal of Counseling Psychology, 1962, Vol. 9, pp. 240-245

Gelatt, H.B., "Information and Decision Theories Applied to College Choice and Planning," in Preparing School Counselors in Educational Guidance. New York: College Entrance Examination Board, 1967, pp. 101-114

Gelatt, H.B., and Clarke, Robert B., "Role of Subjective Probabilities in the Decision Process." Journal of Counseling Psychology, 1967, Vol. 14, pp. 332-341

Gelatt, H.B.; Varenhorst, Barbara; and Carey, Richard, Deciding. New York: College Entrance Examination Board, 1972

Girshick, M.A., "An Elementary Survey of Statistical Decision Theory." Review of Educational Research, 1954, Vol. 24, pp. 448-466

Gribbons, Warren D., "Interview Evaluation Guide." Princeton, N.J.: Educational Testing Service, 1958 (Mimeographed)

Gribbons, Warren D., "Evaluation of an Eighth Grade Group Guidance Program." Personnel and Guidance Journal, 1960, Vol. 38, pp. 740-745

Gribbons, Warren D., "Changes in Readiness for Vocational Planning from Eighth Grade to Tenth Grade." Personnel and Guidance Journal, 1964, Vol. 42, pp. 908-913

Gribbons, Warren D., "Predicting Five Years of Development in Adolescents from Readiness for Vocational Planning Scales." Journal of Educational Psychology, 1965, Vol. 56, pp. 244-253

Hamilton, Jack A., and Krumboltz, John D., "Simulated Work Experience: How Realistic Should It Be?" Personnel and Guidance Journal, 1969, Vol. 48, pp. 39-44

Hays, Donald G., and Rothney, John W.M., "Educational Decision-Making by Superior Secondary School Students and Their Parents." Personnel and Guidance Journal, 1961, Vol. 40, pp. 26-30

Hilton, Thomas, "Career Decision-Making." Journal of Counseling Psychology, 1962, Vol. 9, pp. 291-298

Holland, John L., and Nichols, Robert C., "The Development and Validation of an Indecision Scale: The Natural History of a Problem in Basic Research." Journal of Counseling Psychology, 1964, Vol. 11, pp. 27-34

Hosford, Ray E., "Changes through Counseling." Review of Educational Research, 1968, Vol. 39, pp. 189-207

Katz, Martin, Decisions and Values. New York: College Entrance Examination Board, 1963

Katz, Martin, "Learning to Make Wise Decisions," in Computer-based Vocational Guidance Systems. Washington, D.C.: U.S. Government Printing Office, 1969

Katz, Martin, "Theoretical Foundations of Guidance." Review of Educational Research, 1969, Vol. 30, pp. 127-140

Katz, Martin, You: Today and Tomorrow. Princeton, N.J.: Educational Testing Service, Cooperative Test Division, 1959

Kranzow, Glenn W., Decisiveness Increases beyond the .05 Level in Peer Group Counseling Project Using 'Deciding' Materials with Under-Achieving Students. District of Lake County, Gurnee, Ill., Title III, ESEA, Special Education. February 1973 (Mimeographed)

Krumboltz, John D., Vocational Problem-Solving Experiences for Stimulating Career Exploration and Interest. Stanford, Calif.: Stanford University, School of Education, USOE Contract No. 585059. August 1967

Krumboltz, John D., Vocational Problem-Solving Experiences for Stimulating Career Exploration and Interest: Phase II. Stanford, Calif.: Stanford University, School of Education, USOE Contract No. 7-0111. 1968

Krumboltz, John D., and Thoresen, Carl E., "The Effect of Behavioral Counseling in Group and Individual Settings on Information Seeking Behavior." Journal of Counseling Psychology, 1964, Vol. 11, pp. 324-333

Lindley, D.V., Making Decisions. London: John Wiley & Sons, Ltd., 1971

Luce, Robert D., and Raiffa, Howard, Games and Decisions: Introduction and Critical Survey. New York: Columbia University, Bureau of Applied Research, 1957

March, James G., "Model Bias in Social Action." Review of Educational Research, 1973, Vol. 42, pp. 413-429

McDaniel, H.B., and Mandell, Stuart J., et al., Youth Guidance Systems 1971-72 Project Final Report. Palo Alto, Calif.: College Entrance Examination Board, 1972

Metcalf, Lawrence E., Values Education: Rationale, Strategies and Procedures. 41st Yearbook. Washington, D.C.: National Council for the Social Studies, 1971

Miller, Gordon P., "Students Evaluate Deciding." College Board Review No. 86, 1972

Miller, Gordon P., and Gelatt, H.B., "Deciding: A New Program That Helps Students Learn How to Make Decisions." College Board Review No. 82, 1971

O'Hara, Robert P., "A Theoretical Foundation for the Use of Occupational Information in Guidance." Personnel and Guidance Journal, 1968, Vol. 46, pp. 636-640

Osipow, Samuel H., Theories of Career Development. New York: Appleton-Century-Crofts, 1968

Pruitt, Dean G., "Informational Requirements in Making Decisions." American Journal of Psychology, 1961, Vol. 74, pp. 437-439

Rokeach, Milton, Beliefs, Attitudes, Values. San Francisco: Jossey-Bass, Inc., 1968

Rothney, John W.M., Guidance Practices and Results. New York: Harper & Row, Publishers, 1958

Ryan, T. Antoinette, Effect of an Integrated Instructional Counseling Program to Improve Vocational Decision-Making of Community College Youth. Corvalis, Oreg.: Oregon State University, Cooperative Research Project HRD413-65, 5-0154, 1968

Simon, Sidney B.; Howe, Leland W.; and Kirschenbaum, Howard, A Handbook of Practical Strategies for Teachers and Students. New York: Hart Publishing Company, 1972

Stefflre, Burford, "Vocational Development: Ten Propositions in Search of a Theory." Personnel and Guidance Journal, 1966, Vol. 44, pp. 611-616

Stryker, Perrin, "The Hidden Area of the Presidents' Decision-Making." Special Study No. 25. Hamilton, N.Y.: The Presidents' Association, 1966

Super, Donald E., "Self-Concept and Vocational-Development Theories Applied to College Choice and Planning," College Entrance Examination Board, Preparing School Counselors in Educational Guidance. New York: College Entrance Examination Board, 1967

Super, Donald E., and Crites, John O., Appraising Vocational Fitness. New York: Harper & Row, Publishers, 1962

Super, Donald E., et al., Vocational Development: A Framework for Research. New York: Teachers College Press, 1957

Super, Donald E., and Overstreet, Phoebe L., et al., The Vocational Maturity of Ninth Grade Boys. New York: Columbia University, Teachers College, 1960

Super, Donald E.; Starishevsky, Reuben; Matlin, Norman; and Jordaan, Jean Pierre, Career Development: Self-Concept Theory. New York: College Entrance Examination Board, 1963

Thoresen, Carl E., and Mehrens, William A., "Decision Theory and Vocational Counseling." Personnel and Guidance Journal, 1967, Vol. 46, pp. 165-171

Tiedeman, David V., and O'Hara, Robert P., Career Development: Choice and Adjustment. New York: College Entrance Examination Board, 1963

Tillery, Dale, and Kildegaarde, T., Educational Goals, Attitudes, and Behavior. Berkeley: Center for Research and Development in Higher Education, University of California, 1972

J.C. Penney Company, Inc., Value Clarification. Forum, N.Y.: J.C. Penney Company, Inc., 1972

Vriend, John, "Vocational Maturity Ratings of Inner-City High School Seniors." Journal of Counseling Psychology, 1969, Vol. 16, pp. 377-384

Willingham, Warren; Ferrin, Richard I.; and Begle, Elsie P., Career Guidance in Secondary Education. New York: College Entrance Examination Board, 1972

Wilson, Eugene H., "A Task Oriented Course in Decision-Making." Information System for Vocational Decisions, Project Report No. 7. Cambridge, Mass.: Harvard University, 1967

Wisniewski, Richard, Teaching about Life in the City. Washington, D.C.: National Council for the Social Studies, 1972

Wrenn, Gilbert A., The Counselor in a Changing World. Washington, D.C.: American Personnel and Guidance Association, 1962